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UNITED STATES DEPARTMENT OF COMMERCE
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WEATHER BUREAU - - - F. W. Reichelderfer, *Chief*

MONTHLY WEATHER REVIEW

OCTOBER 1945

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MONTHLY WEATHER REVIEW

Acting Editor, Robert N. Culnan

VOL. 73, No. 10
W. B. No. 1453

OCTOBER 1945

CLOSED DECEMBER 5, 1945
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METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR OCTOBER 1945

AEROLOGICAL OBSERVATIONS

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidity in percent, obtained by radiosondes during October 1945*

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

Altitude (meters) m. s. l.	Albany, N. Y. (93 m.)				Albuquerque, N. Mex. (1,620 m.)				Apalachicola, Fla. (5 m.)				Atlanta, Ga. (300 m.)				Big Spring, Tex. (774 m.)				Bismarck, N. Dak. (505 m.)				Boise, Idaho (868 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	31	1,004	7.9	81	31	840	15.4	39	31	1,016	20.3	80	31	984	14.1	78	31	930	15.5	73	31	955	5.8	55	31	917	11.9	51
500	31	956	7.6	73					31	960	19.3	69	31	961	16.5	63												
1,000	31	909	5.0	73					31	906	16.2	70	31	906	14.0	64	31	905	16.1	66	31	900	9.7	42	31	903	15.0	44
1,500	31	846	2.6	73					31	854	13.9	62	31	853	11.8	60	31	854	14.5	59	31	847	7.2	41	31	851	14.0	38
2,000	31	795	0.1	68	31	803	14.9	38	31	804	11.8	54	31	804	9.9	48	31	804	13.0	50	31	797	4.7	41	31	801	10.6	40
2,500	31	747	−1.7	62	31	757	11.1	41	31	758	9.5	43	31	757	7.9	39	31	758	10.7	46	31	749	2.2	43	31	754	6.9	42
3,000	31	701	−4.1	57	31	712	7.4	46	31	713	7.2	33	31	712	5.5	36	31	713	7.8	44	31	704	−0.7	46	31	710	3.4	44
4,000	29	617	−9.4	51	31	650	0.1	49	30	631	2.0	----	31	629	−0.2	----	30	631	2.1	----	31	620	−6.7	48	31	626	−3.2	44
5,000	29	541	−15.2	47	31	555	−5.7	43	30	556	−4.2	----	31	554	−5.7	----	29	557	−3.9	----	31	545	−12.8	48	31	551	−9.9	47
6,000	28	473	−21.4	----	31	488	−11.8	----	30	489	−10.9	----	30	487	−12.6	----	29	489	−10.7	----	31	477	−19.3	48	31	483	−16.5	45
7,000	28	412	−28.3	----	31	428	−18.9	----	30	429	−17.7	----	30	427	−19.8	----	29	429	−17.8	----	30	417	−26.0	----	31	422	−23.8	----
8,000	28	358	−35.0	----	31	373	−26.2	----	30	375	−24.6	----	29	372	−27.1	----	29	375	−24.6	----	30	362	−33.5	----	31	368	−31.5	----
9,000	27	310	−40.9	----	30	324	−33.8	----	30	326	−31.8	----	28	323	−34.7	----	29	326	−31.7	----	30	313	−41.0	----	30	318	−39.4	----
10,000	26	267	−46.3	----	30	281	−40.4	----	28	282	−39.2	----	25	279	−41.9	----	27	282	−39.6	----	29	270	−47.6	----	30	275	−46.4	----
11,000	25	229	−51.3	----	30	242	−47.0	----	28	243	−46.7	----	24	240	−48.1	----	27	243	−46.8	----	26	232	−53.2	----	29	236	−52.5	----
12,000	24	196	−54.9	----	28	207	−53.3	----	27	208	−53.6	----	24	206	−53.7	----	26	209	−53.3	----	25	198	−56.9	----	28	202	−56.9	----
13,000	24	168	−57.0	----	22	177	−58.4	----	25	178	−59.6	----	23	176	−58.3	----	26	178	−59.0	----	17	171	−57.7	----	23	173	−59.2	----
14,000	16	143	−59.1	----	15	151	−61.9	----	24	151	−65.0	----	22	150	−62.3	----	18	154	−63.1	----	13	145	−59.7	----	18	148	−62.1	----
15,000	9	122	−61.1	----	6	129	−67.3	----	18	128	−68.6	----	15	127	−65.6	----	8	131	−68.8	----	6	125	−60.7	----	11	126	−63.5	----
16,000	6	105	−61.9	----					10	109	−72.0	----	10	107	−68.5	----									5	107	−64.0	----

Altitude (meters) m. s. l.	Brownsville, Tex. (6 m.)				Buffalo, N. Y. (221 m.)				Burrwood, La. (2 m.)				Caribou, Maine (191 m.)				Charleston, S. C. (14 m.)				Clovis, N. Mex. (1,306 m.)				Denver, Colo. (1,616 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	31	1,015	21.7	85	30	989	8.6	74	31	1,017	21.3	82	31	991	4.1	85	30	1,017	15.7	88	31	871	12.5	66	30	840	9.6	60
500	31	959	20.3	77	30	957	8.3	69	31	960	18.9	74	31	954	3.5	80	30	961	17.3	67								
1,000	31	905	17.8	72	30	900	5.6	66	31	906	15.6	69	31	896	1.2	78	30	906	14.5	62								
1,500	31	854	15.6	66	30	846	2.8	65	31	854	14.0	56	31	842	−1.3	74	30	854	12.4	54	31	851	14.5	57				
2,000	31	804	13.8	52	30	795	0.7	67	31	804	12.1	46	31	791	−2.7	66	30	804	10.3	49	31	802	12.4	49	30	802	12.6	44
2,500	31	758	11.7	44	30	747	−1.9	67	31	758	10.0	41	31	742	−4.8	63	30	757	8.3	42	31	756	9.9	43	30	756	9.4	44
3,000	31	714	9.3	38	30	701	−4.3	63	31	713	7.9	34	31	696	−7.1	63	30	712	6.1	37	31	711	6.6	42	30	711	6.0	45
4,000	31	632	3.9	----	29	617	−9.6	61	31	632	2.3	----	31	612	−11.3	58	30	630	1.0	----	31	629	0.6	39	30	628	−1.4	49
5,000	31	558	−2.5	----	29	542	−15.0	55	30	557	−3.7	----	31	536	−17.5	59	29	555	−5.2	----	31	554	−5.2	----	30	553	−8.6	49
6,000	31	491	−8.6	----	29	474	−22.1	----	30	490	−10.0	----	31	469	−24.2	----	29	488	−11.8	----	30	487	−11.8	----	30	485	−15.4	42
7,000	31	432	−15.1	----	27	412	−29.3	----	30	430	−17.4	----	31	408	−31.1	----	28	428	−18.9	----	29	427	−18.9	----	29	425	−22.6	----
8,000	31	377	−22.1	----	27	358	−35.8	----	29	376	−24.5	----	29	353	−38.2	----	26	373	−26.0	----	29	373	−26.3	----	29	370	−30.4	----
9,000	31	328	−29.6	----	27	309	−42.0	----	29	327	−31.8	----	28	305	−43.6	----	25	324	−33.3	----	29	324	−33.3	----	29	320	−38.3	----
10,000	31	285	−37.3	----	26	267	−46.9	----	29	283	−39.1	----	27	263	−48.9	----	25	281	−40.0	----	29	280	−40.6	----	29	276	−45.7	----
11,000	31	246	−44.9	----	16	229	−49.6	----	29	244	−46.9	----	26	228	−52.8	----	24	242	−46.8	----	29	241	−47.9	----	28	238	−51.5	----
12,000	31	211	−52.0	----	12	196	−52.2	----	29	209	−54.4	----	24	193	−55.6	----	22	208	−53.4	----	29	207	−53.9	----	27	204	−55.8	----
13,000	30	180	−58.7	----	7	167	−53.4	----	27	179	−60.6	----	14	164	−55.4	----	19	177	−59.1	----	27	177	−59.4	----	23	174	−58.9	----
14,000	27	154	−65.5	----					24	152	−66.6	----	11	149	−56.2	----	14	151	−63.5	----	22	151	−64.6	----	14	148	−62.5	----
15,000	18	130	−70.4	----					14	129	−71.1	----	7	120	−57.0	----	7	128	−66.8	----	9	128	−69.2	----	7	126	−66.1	----
16,000	9	110	−74.5	----									5	102	−56.9	----												

Altitude (meters) m. s. l.	Dodge City, Kans. (787 m.)				El Paso, Tex. (1,195 m.)				Ely, Nev. (1,908 m.)				Fort Worth, Tex. (211 m.)				Glasgow, Mont. (648 m.)				Grand Junction, Colo. (1,414 m.)				Great Falls, Mont. (1,128 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	31	926	12.3	65	31	884	18.0	53	31	811	8.0	61	31	994	17.5	70	31	938	8.5	53	30	860	12.2	58	31	886	11.1	60
500													31	961	17.6	63												
1,000	31	903	14.5	56									31	906	15.1	67	31	900	11.0	43								
1,500	31	852	13.2	49	31	853	17.9	50					31	854	13.6	60	31	847	8.1	44	30	852	13.6	52	31	848	11.4	44
2,000	31	802	10.8	46	31	804	14.5	53	31	802	10.0	54	31	804	11.8	50	31	796	5.0	48	30	802	11.9	47	31	798	8.1	46
2,500	31	755	8.2	42	31	758	11.5	53	31	756	8.2	49	31	758	9.3	48	31	749	2.0	49	30	756	8.5	49	31	751	4.4	49
3,000	31	710	5.4	37	31	713	8.6	48	31	711	4.5	52	31	713	6.8	44	31	703	−1.1	53	30	711	4.7	53	31	706	1.0	50
4,000	31	628	−0.4	33	31	632	2.3	42	31	628	−2.2	56	31	631	1.1	39	30	620	−6.7	52	30	628	−2.7	59	31	622	−5.0	48
5,000	31	553	−6.5	29	31	557	−3.7	----	31	553	−7.9	48	31	556	−4.4	----	30	545	−12.4	53	30	553	−9.2	52	31	547	−11.3	51
6,000	31	486	−13.7	----	31	490	−10.1	----	31	485	−14.4	43	29	489	−10.8	----	30	477	−18.9	51	30	485	−15.9	43	30	480	−18.0	47
7,000	31	426	−21.2	----	31	430	−17.1	----	31	425	−21.7	----	29	429	−18.1	----	29	416	−25.7	----	30	424	−23.1	----	30	419	−25.4	----
8,000	31	371	−28.7	----	31	376	−24.3	----	31	370	−29.3	----	29	374	−25.2	----	28	362	−33.1	----	30	369	−30.6	----	30	364	−33.2	----
9,000	31	322	−36.1	----	30	327	−31.4	----	31	321	−37.0	----	28	326	−32.1	----	28	312	−40.6	----	30	320	−38.5	----	29	315	−41.2	----
10,000	30	278	−42.9	----	30	283	−39.0	----	31	277	−44.7	----	26	282	−39.6	----	27	270	−47.7	----	27	277	−44.7	----	29	271	−48.7	----
11,000	30	239	−49.2	----	30	244	−46.9	----	31	238	−50.1	----	25	243	−46.9	----	24	232	−52.8	----	26	238	−50.2	----	27	233	−53.6	----
12,000	30	205	−54.8	----	30	209	−54.0	----	29	204	−54.8	----	24	209	−53.4	----	19	199	−55.6	----	24	203	−55.1	----	27	199	−57.0	----
13,000	26	176	−58.7	----	26	179	−59.9	----	23	175	−58.4	----	21	178	−59.0	----	17	171	−56.9	----	17	175	−58.0	----	22	170	−58.8	----
14,000	21	150	−62.4	----	20	153	−65.1	----	16	149	−61.5	----	17	152	−64.7	----	11	146	−59.6	----	11	150	−60.9	----	19	145	−60.2	----
15,000	13	128	−65.8	----	5	130	−69.6	----	6	128	−65.4	----	10	129	−69.3	----	8	124	−61.1	----	5	127	−64.2	----	11	124	−62.1	----
16,000	7	109	−69.5	----									5	109	−74.0	----									5	105	−63.0	----

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidity in percent, obtained by radiosondes during October 1945*—Continued

Altitude (meters) m. s. l.	Greensboro, N. C. (273 m.)				Hatteras, N. C. (3 m.)				Havana, Cuba[1] (51 m.)				Huntington, W. Va. (172 m.)				International Falls, Minn. (343 m.)				Joliet, Ill. (178 m.)				Lake Charles, La. (5 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	31	987	11.3	84	15	1,018	20.2	----	----	----	----	----	31	998	9.5	87	31	972	4.2	75	31	996	8.7	79	30	1,017	18.2	88
500	31	960	14.1	68	15	961	17.9	----	----	----	----	----	31	961	13.1	68	31	953	5.1	72	31	958	10.3	64	30	961	18.2	74
1,000	31	905	11.7	65	15	906	14.4	----	----	----	----	----	31	905	10.5	65	31	897	2.9	71	31	901	7.8	65	30	906	15.8	68
1,500	31	852	8.9	63	15	854	11.7	----	----	----	----	----	31	851	7.8	64	31	843	0.6	65	31	848	5.3	61	30	855	13.9	62
2,000	31	802	7.2	50	15	804	10.0	----	----	----	----	----	31	801	5.3	58	31	792	−1.5	60	31	798	3.4	54	30	805	12.2	53
2,500	31	755	5.0	47	15	758	8.4	----	----	----	----	----	31	754	3.1	57	31	744	−3.6	54	31	750	1.8	47	30	758	10.4	46
3,000	31	710	2.8	39	15	712	5.7	----	----	----	----	----	31	708	1.2	51	31	698	−6.3	57	31	704	−0.8	47	30	714	8.1	44
4,000	31	627	−2.4	33	15	630	0.8	----	----	----	----	----	31	625	−3.4	45	31	613	−11.9	51	31	621	−6.2	44	30	632	2.2	43
5,000	31	552	−8.4	----	15	555	−5.4	----	----	----	----	----	31	550	−9.3	47	31	537	−17.3	48	31	546	−11.5	45	28	557	−3.6	----
6,000	31	484	−15.2	----	15	488	−12.1	----	----	----	----	----	31	483	−15.7	50	31	470	−23.8	----	31	479	−17.8	46	28	490	−10.1	----
7,000	31	424	−22.7	----	15	428	−19.3	----	----	----	----	----	31	422	−22.8	----	31	409	−30.5	----	31	418	−24.7	----	28	430	−17.0	----
8,000	31	368	−30.4	----	14	373	−26.5	----	----	----	----	----	31	367	−30.1	----	31	354	−37.2	----	30	364	−31.8	----	28	376	−24.1	----
9,000	30	319	−37.6	----	10	325	−32.8	----	----	----	----	----	31	318	−37.3	----	30	306	−43.3	----	29	315	−38.8	----	28	327	−31.3	----
10,000	30	276	−44.8	----	6	281	−39.6	----	----	----	----	----	30	275	−44.7	----	30	263	−48.1	----	29	272	−45.9	----	28	284	−38.6	----
11,000	29	237	−51.3	----	----	----	----	----	----	----	----	----	30	236	−51.1	----	29	226	−51.4	----	29	233	−51.9	----	28	244	−46.0	----
12,000	29	203	−56.4	----	----	----	----	----	----	----	----	----	27	202	−55.7	----	28	194	−53.4	----	29	199	−56.0	----	28	210	−53.1	----
13,000	25	173	−60.5	----	----	----	----	----	----	----	----	----	22	172	−59.4	----	20	166	−54.6	----	22	170	−57.3	----	25	179	−59.3	----
14,000	22	147	−63.5	----	----	----	----	----	----	----	----	----	17	146	−62.0	----	16	142	−55.5	----	19	144	−59.4	----	23	153	−65.1	----
15,000	13	125	−66.1	----	----	----	----	----	----	----	----	----	10	124	−63.9	----	10	121	−55.5	----	14	123	−60.7	----	13	129	−69.7	----
16,000	9	106	−67.6	----	----	----	----	----	----	----	----	----	6	105	−63.7	----	7	103	−56.4	----	10	104	−60.3	----	----	----	----	----
17,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	6	88	−60.7	----	----	----	----	----

Altitude (meters) m. s. l.	Lander, Wyo. (1,632 m.)				Las Vegas, Nev. (574 m.)				Little Rock, Ark. (79 m.)				Louisville, Ky. (165 m.)				Mazatlan, Mexico (79 m.)				Medford, Oreg. (409 m.)				Merida, Mexico (27 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	31	838	8.1	62	31	948	20.6	37	31	1,010	14.6	84	31	999	11.7	74	31	1,003	26.7	78	31	968	15.0	64	29	1,011	25.6	79
500	----	----	----	----	----	----	----	----	31	961	15.6	66	31	960	13.4	59	31	957	24.6	69	31	959	16.0	60	29	958	22.9	77
1,000	----	----	----	----	31	903	21.2	32	31	906	13.3	62	31	904	10.6	60	31	904	22.4	65	31	903	15.3	54	29	904	19.9	75
1,500	----	----	----	----	31	852	17.7	34	31	853	11.9	54	31	851	8.1	60	31	853	19.9	59	31	852	12.5	54	29	853	16.8	75
2,000	31	802	10.8	46	31	803	13.7	39	31	804	10.0	51	31	801	6.1	51	31	804	17.5	48	31	802	9.5	54	29	804	14.2	70
2,500	31	754	7.7	46	31	757	9.7	44	31	757	7.8	48	31	753	4.2	48	31	759	14.6	47	31	755	6.8	49	29	758	12.0	59
3,000	31	710	4.2	47	31	712	5.8	53	31	712	5.4	44	31	708	1.9	46	31	714	11.2	48	31	710	3.9	48	29	714	10.0	51
4,000	31	627	−2.7	49	31	629	−1.0	48	30	629	−0.4	42	30	625	−3.2	46	30	633	4.7	51	31	627	−1.9	48	29	632	4.1	50
5,000	31	552	−9.4	46	31	554	−7.1	36	30	554	−6.1	38	28	550	−9.0	41	28	559	−1.8	45	31	552	−7.8	46	29	558	−2.1	46
6,000	31	484	−16.5	47	31	487	−13.7	----	30	487	−12.8	----	27	483	−15.9	----	28	492	−7.5	39	30	485	−14.3	36	28	492	−8.3	----
7,000	31	423	−24.0	----	31	426	−21.1	----	30	426	−19.8	----	27	422	−23.1	----	26	433	−13.9	----	30	424	−21.2	----	28	432	−14.7	----
8,000	31	368	−32.1	----	30	372	−28.4	----	30	372	−27.2	----	27	367	−30.5	----	26	378	−20.9	----	30	370	−29.2	----	27	378	−21.5	----
9,000	31	318	−40.2	----	29	323	−35.3	----	29	323	−34.5	----	25	318	−37.8	----	25	330	−28.5	----	29	320	−37.4	----	27	329	−28.6	----
10,000	31	274	−47.7	----	29	279	−42.3	----	29	280	−41.5	----	25	274	−44.8	----	24	286	−36.3	----	29	277	−44.7	----	27	286	−36.1	----
11,000	30	235	−53.3	----	29	240	−48.1	----	26	241	−48.3	----	22	236	−51.2	----	24	247	−44.3	----	27	238	−50.9	----	26	247	−44.2	----
12,000	27	201	−56.4	----	28	206	−53.4	----	24	207	−53.7	----	18	202	−55.6	----	24	212	−52.3	----	25	204	−55.4	----	26	212	−52.1	----
13,000	20	173	−59.0	----	26	176	−57.9	----	24	176	−58.5	----	14	172	−58.6	----	21	181	−59.9	----	25	174	−58.8	----	24	181	−59.7	----
14,000	10	147	−60.4	----	23	150	−61.2	----	19	150	−62.8	----	9	146	−60.7	----	19	154	−66.7	----	18	149	−60.8	----	22	154	−66.3	----
15,000	6	126	−62.9	----	21	127	−65.0	----	12	127	−67.2	----	----	----	----	----	15	131	−72.5	----	11	128	−63.3	----	15	131	−71.2	----
16,000	----	----	----	----	15	109	−67.7	----	6	109	−70.4	----	----	----	----	----	6	110	−76.5	----	----	----	----	----	5	111	−76.8	----
17,000	----	----	----	----	5	92	−67.3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Altitude (meters) m. s. l.	Miami, Fla. (4 m.)				Nashville, Tenn. (180 m.)				North Platte, Nebr. (849 m.)				Oakland, Calif. (2 m.)				Ogden, Utah (1,355 m.)				Oklahoma City, Okla. (391 m.)				Omaha, Nebr. (308 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	31	1,015	23.7	89	31	997	13.9	74	31	919	10.0	65	31	1,014	16.5	75	31	867	11.7	53	31	972	14.9	77	24	981	12.9	67
500	31	959	22.2	82	31	960	15.1	64	----	----	----	----	31	958	16.3	60	----	----	----	----	31	960	15.5	72	24	959	13.6	59
1,000	31	905	19.6	72	31	905	12.4	62	31	902	12.9	54	31	902	15.7	47	----	----	----	----	31	905	14.3	65	24	904	11.7	56
1,500	31	854	16.8	76	31	853	10.0	58	31	850	11.7	50	31	850	13.4	41	31	852	14.1	44	31	853	12.7	55	24	850	9.8	55
2,000	31	805	14.3	71	31	803	8.2	50	31	800	8.9	50	31	801	10.4	40	31	803	11.4	43	31	803	11.0	45	24	801	8.4	51
2,500	31	759	12.0	67	31	756	6.2	49	31	754	6.3	45	31	754	7.3	42	31	756	8.0	44	31	756	8.8	39	24	754	6.3	48
3,000	31	714	9.5	61	31	710	3.5	52	31	708	3.8	41	31	709	3.7	44	31	711	3.7	51	31	711	6.3	37	24	709	3.7	46
4,000	31	633	4.2	53	31	627	−1.7	48	31	626	−2.4	45	31	626	−2.4	42	31	628	−2.9	50	31	629	0.9	--	24	626	−1.9	45
5,000	31	559	−1.3	44	31	552	−7.6	41	31	551	−8.9	44	31	551	−8.8	38	31	552	−9.3	54	31	555	−5.4	----	24	551	−8.4	39
6,000	30	493	−7.0	42	31	485	−14.4	----	31	483	−15.8	46	31	484	−15.4	35	31	485	−16.0	45	31	488	−12.3	----	24	484	−15.1	----
7,000	30	433	−13.5	47	31	424	−21.8	----	31	423	−23.0	----	30	423	−23.0	----	31	424	−23.4	----	31	427	−19.7	----	24	424	−22.5	----
8,000	29	379	−20.3	----	31	370	−29.3	----	31	368	−31.0	----	30	369	−30.5	----	31	369	−31.3	----	31	372	−27.4	----	24	369	−30.3	----
9,000	29	330	−27.7	----	31	321	−36.6	----	31	319	−38.8	----	30	319	−37.3	----	31	319	−39.2	----	29	323	−34.8	----	24	320	−38.2	----
10,000	29	287	−35.2	----	31	277	−43.7	----	30	275	−45.7	----	30	276	−43.4	----	31	276	46.3	----	29	280	−41.4	----	24	276	−45.3	----
11,000	24	248	−43.3	----	31	238	−50.4	----	30	236	−51.3	----	30	238	−48.9	----	30	236	−51.8	----	28	241	−48.0	----	24	237	−51.1	----
12,000	22	213	−51.4	----	31	204	−55.7	----	26	202	−55.9	----	27	203	−52.9	----	29	203	−55.8	----	27	207	−54.0	----	24	203	−55.6	----
13,000	20	182	−58.8	----	27	174	−60.0	----	21	173	−59.0	----	21	175	−55.0	----	24	173	−58.5	----	25	176	−59.2	----	21	173	−57.9	----
14,000	17	155	−65.5	----	16	148	−63.4	----	10	148	−61.0	----	17	149	−58.8	----	22	148	−61.6	----	18	150	−63.4	----	10	148	−60.4	----
15,000	8	132	−70.1	----	10	125	−66.6	----	5	126	−62.8	----	8	128	−61.4	----	12	126	−64.2	----	14	128	−67.2	----	5	125	−62.6	----
16,000	----	----	----	----	7	107	−68.4	----	----	----	----	----	----	----	----	----	9	108	−66.3	----	5	107	−69.5	----	----	----	----	----

See footnotes at end of table.

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidity in percent, obtained by radiosondes during October 1945—Continued*

Altitude (meters) m. s. l.	Phoenix, Ariz. (339 m.)				Pittsburgh, Pa. (382 m.)				Portland, Maine (20 m.)				Rapid City, S. Dak. (981 m.)				St. Louis, Mo. (171 m.)				St. Paul, Minn. (205 m.)				San Antonio, Tex. (240 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	31	973	22.0	53	25	972	10.0	76	30	1,012	6.3	86	31	904	9.0	53	31	998	12.7	71	31	989	8.2	68	31	989	18.4	78
500	31	953	25.2	40	25	959	10.3	72	30	955	8.2	70					31	959	12.7	62	31	957	8.4	60	31	960	19.0	70
1,000	31	902	22.8	37	25	902	8.1	69	30	899	5.8	67	31	902	9.8	50	31	904	9.9	62	31	900	6.3	56	31	906	16.6	72
1,500	31	852	19.1	41	25	849	5.4	63	30	845	3.3	66	31	850	10.9	42	31	851	7.7	54	31	846	4.1	53	31	854	14.4	71
2,000	31	803	15.0	45	25	798	3.0	64	20	794	1.0	66	31	800	7.5	48	31	800	6.7	44	31	796	1.8	52	31	805	12.9	58
2,500	31	757	10.9	48	25	751	0.5	61	29	747	−0.9	61	31	753	4.6	50	31	753	4.7	45	31	748	−0.5	50	31	758	10.7	52
3,000	31	712	7.2	48	25	705	−1.6	58	29	701	−3.5	58	31	708	1.7	46	31	708	2.0	44	31	702	−2.9	48	31	714	8.4	43
4,000	31	630	0.9	40	25	621	−6.2	54	29	617	−8.7	54	31	624	−4.0	43	30	625	−3.4	42	31	618	−8.0	53	31	632	2.7	37
5,000	29	556	−5.1	----	25	546	−11.1	49	29	542	−14.7	50	31	549	−10.3	47	30	550	−9.3	37	30	543	−14.1	53	31	558	−3.2	36
6,000	29	488	−12.1	----	25	479	−17.5	57	28	474	−20.6	51	31	481	−17.0	47	30	482	−16.2	----	30	475	−20.5	52	31	491	−9.7	37
7,000	28	428	−19.3	----	24	418	−25.1	----	28	414	−27.6	----	30	421	−24.6	----	29	422	−23.5	----	30	415	−27.2	----	31	431	−16.5	40
8,000	28	374	−26.6	----	24	363	−32.3	----	27	359	−33.5	----	30	365	−32.2	----	29	367	−31.3	----	29	360	−34.5	----	29	376	−23.5	----
9,000	28	324	−33.7	----	24	314	−38.8	----	26	311	−39.4	----	29	316	−40.1	----	29	318	−38.7	----	29	312	−41.6	----	31	327	−30.8	----
10,000	28	281	−40.7	----	24	271	−44.7	----	25	268	−45.1	----	28	272	−47.9	----	27	274	−45.5	----	29	268	−47.8	----	31	284	−38.3	----
11,000	27	242	−47.4	----	22	234	−49.6	----	25	231	−50.7	----	27	234	−53.8	----	27	236	−51.5	----	29	230	−53.0	----	30	245	−46.0	----
12,000	26	207	−53.7	----	20	200	−53.3	----	23	197	−54.0	----	25	200	−56.5	----	26	201	−56.4	----	28	197	−55.9	----	29	210	−53.3	----
13,000	22	178	−58.7	----	18	171	−57.4	----	18	169	−56.8	----	21	171	−58.2	----	19	172	−59.6	----	22	168	−56.7	----	28	179	−59.8	----
14,000	16	152	−62.5	----	9	146	−60.1	----	14	144	−58.6	----	15	146	−60.8	----					18	143	−57.3	----	25	152	−65.5	----
15,000	10	129	−66.1	----					11	122	−59.0	----	8	124	−62.8	----					12	122	−60.3	----	17	129	−70.7	----
16,000	5	109	−67.9	----					5	122	−59.0	----									9	104	−60.6	----	11	110	−75.2	----
17,000																					7	87	−60.1	----				

Altitude (meters) m. s. l.	San Juan, P. R. (15 m.)				Santa Maria, Calif. (71 m.)				Sault Ste. Marie, Mich. (221 m.)				Spokane, Wash. (598 m.)				Swan Island, W. I.[1] (10 m.)				Tacubaya, Mexico (2,306 m.)				Tampa, Fla. (3 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	31	1,012	25.3	87	31	1,007	14.4	82	29	988	5.4	83	31	946	10.7	74					29	774	15.0	63	31	1,016	22.6	83
500	31	959	22.3	83	31	958	15.3	68	29	955	4.9	78													31	960	20.6	75
1,000	31	905	19.3	78	31	903	15.8	55	29	898	2.5	76	31	902	11.7	60									31	906	17.6	73
1,500	31	854	16.6	72	31	851	13.5	50	29	844	0.5	69	31	850	8.6	59									31	854	15.2	67
2,000	30	805	13.8	70	31	801	10.3	48	29	792	−1.9	65	31	800	5.3	60									31	805	12.6	60
2,500	30	758	11.2	63	31	755	7.3	42	29	744	−4.2	60	31	752	2.3	57					29	758	13.9	63	31	758	10.3	51
3,000	30	714	8.7	57	31	710	4.5	39	29	698	−6.7	56	31	706	−0.4	56					29	713	10.3	66	31	714	7.9	44
4,000	30	632	3.1	57	31	627	−1.6	34	29	613	−12.2	51	30	622	−6.4	50					29	632	3.3	75	31	632	2.3	40
5,000	30	558	−2.7	52	31	553	−7.5	----	29	538	−17.8	48	29	546	−12.8	54					29	558	−2.1	63	31	557	−3.6	----
6,000	30	491	−8.7	47	31	485	−14.2	----	29	470	−24.1	----	29	479	−19.2	48					29	491	−7.4	49	31	490	−10.2	----
7,000	29	431	−15.0	43	31	424	−21.7	----	29	409	−30.7	----	29	418	−26.2	----					28	432	−13.4	----	30	430	−17.0	----
8,000	28	377	−22.1	----	30	370	−28.8	----	29	354	−37.8	----	29	363	−33.4	----					28	378	−20.4	----	30	376	−23.7	----
9,000	28	328	−29.6	----	30	320	−35.4	----	29	305	−43.7	----	29	314	−41.2	----					28	329	−28.0	----	30	327	−30.9	----
10,000	28	285	−37.4	----	30	277	−41.3	----	29	263	−48.0	----	28	270	−48.4	----					28	286	−35.5	----	29	283	−38.5	----
11,000	27	246	−45.5	----	29	239	−46.9	----	29	226	−51.4	----	26	232	−53.7	----					28	247	−43.2	----	29	244	−46.5	----
12,000	27	211	−53.6	----	28	205	−52.3	----	25	193	−53.4	----	24	199	−56.5	----					25	212	−51.1	----	29	209	−54.1	----
13,000	24	180	−61.2	----	25	176	−56.4	----	24	165	−54.4	----	19	169	−57.8	----					23	182	−58.8	----	22	179	−61.0	----
14,000	20	153	−67.9	----	22	150	−60.5	----	17	141	−55.4	----	11	145	−59.5	----					16	154	−65.8	----	17	152	−67.3	----
15,000	9	129	−73.6	----	18	128	−64.4	----	15	121	−56.9	----	6	125	−61.8	----					5	131	−70.6	----	11	128	−72.3	----
16,000					12	109	−66.8	----	8	102	−56.7	----													6	108	−74.1	----
17,000					10	92	−68.2	----																				

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

Altitude (meters) m. s. l.	Tatoosh Island, Wash. (31 m.)				Toledo, Ohio (191 m.)				Washington, D. C. (25 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	31	1,014	10.0	90	31	994	9.3	78	31	1,015	12.8	77
500	31	959	11.3	71	31	958	10.1	68	31	959	12.4	63
1,000	31	903	9.1	67	31	901	7.5	65	31	904	9.3	64
1,500	31	850	7.0	59	31	848	5.0	60	31	851	6.7	60
2,000	31	799	4.7	56	31	797	2.7	64	31	800	4.1	55
2,500	31	752	2.1	51	31	750	0.4	57	31	752	2.1	45
3,000	31	706	−0.6	52	31	704	−1.7	55	31	707	−0.3	45
4,000	30	622	−6.3	50	29	620	−7.4	52	31	623	−4.7	40
5,000	30	547	−11.9	52	29	545	−13.2	51	31	548	−10.2	36
6,000	28	480	−18.0	52	29	477	−19.7	53	31	481	−17.1	36
7,000	28	419	−24.9	----	29	416	−26.4	----	31	420	−24.1	----
8,000	27	364	−32.4	----	29	362	−33.8	----	31	365	−31.8	----
9,000	25	316	−39.6	----	29	313	−40.4	----	31	316	−39.2	----
10,000	24	273	−46.9	----	29	270	−46.5	----	30	273	−46.0	----
11,000	17	237	−50.4	----	26	232	−51.9	----	30	234	−52.1	----
12,000	15	202	−55.5	----	23	198	−55.8	----	30	200	−56.4	----
13,000	12	173	−57.5	----	20	169	−57.3	----	25	171	−59.8	----
14,000	11	148	−59.3	----	15	144	−58.8	----	21	146	−62.2	----
15,000	11	126	−16.7	----	11	122	−60.7	----	13	124	−64.1	----
16,000									7	104	−63.6	----

[1] Data not yet received.

NOTE.—All observations scheduled between 10 p. m. and midnight, E. S. T. (0300 and 0500, G. C. T.), except at Mazatlan and Merida, where they are taken near 9 p. m. E. S. T. (0200, G. C. T.)

"Number of observations" refers to pressure only. (In a few cases temperature or humidity data may be missing for one or more levels of some observations). Relative humidity data are not published for levels having a corresponding mean temperature below −20° C.

All relative humidity observations are obtained by electric hygrometer and have been adjusted to compensate for the values occurring below the operating range of the humidity element. For explanation of the adjustment see article entitled "Curve Method for Obtaining Monthly Means of Relative Humidity," p. 241, MONTHLY WEATHER REVIEW, December 1944.

None of the means included in these tables are based on less than 15 surface or 5 standard level observations.

Raob data for Havana, Cuba, will appear in a later issue.

TABLE 2.—*Free-air resultant winds based on pilot balloon observations made near 5 p. m. E. S. T. (2200 G. C. T.), during October 1945. Directions given in degrees from north (N=360°, E=90°, S=180°, W=270°). Velocities in meters per second*

Altitude (meters) m. s. l.	Abilene, Tex. (538 m.)			Albuquerque N. Mex. (1,630 m.)			Atlanta, Ga. (299 m.)			Billings, Mont. (1,095 m.)			Bismarck, N. Dak. (512 m.)			Boise, Idaho (868 m.)			Brownsville, Tex. (7 m.)			Buffalo, N. Y. (220 m.)			Burlington, Vt. (132 m.)			Charleston, S. C. (16 m.)			Cincinnati, Ohio (152 m.)			Denver Colo. (1,627 m.)			El Paso, Tex. (1,196 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	30	158	1.1	31	225	1.0	29	342	1.7	31	254	1.7	31	282	4.3	31	302	2.2	31	87	2.4	30	254	4.8	30	227	1.9	30	36	0.9	31	268	2.1	31	29	1.5	26	142	1.4
500	---	---	---	---	---	---	29	332	1.9	---	---	---	---	---	---	---	---	---	31	91	3.5	30	251	7.2	30	231	5.5	30	44	1.8	31	264	4.1	---	---	---	---	---	---
1,000	30	189	2.0	---	---	---	26	324	1.5	---	---	---	31	291	5.6	31	297	2.4	28	109	2.7	28	250	9.6	29	255	6.7	30	20	0.8	28	251	5.7	---	---	---	---	---	---
1,500	28	221	2.8	---	---	---	25	311	2.2	31	261	3.6	31	293	6.6	31	270	2.0	26	167	1.3	24	262	11.4	24	261	10.5	26	308	2.0	26	268	7.0	---	---	---	26	172	1.4
2,000	23	239	3.7	31	247	1.3	25	304	3.1	31	271	5.1	30	296	10.4	29	256	2.4	22	253	1.3	21	273	12.2	19	260	11.9	25	286	4.2	21	283	9.4	31	35	1.1	26	182	1.2
2,500	21	255	4.1	31	270	2.1	23	312	3.1	30	271	8.5	28	299	12.2	29	253	3.1	23	284	1.4	14	272	12.6	17	266	15.1	23	287	5.3	18	284	11.1	29	204	0.3	24	217	2.6
3,000	21	269	5.1	30	261	2.5	22	297	5.0	30	270	9.5	26	296	13.9	29	253	3.8	22	340	1.3	10	284	13.0	14	263	17.8	22	281	6.0	16	289	14.7	29	274	2.0	23	240	3.5
4,000	21	279	7.2	29	276	6.1	18	288	5.5	27	282	12.3	23	297	16.0	27	267	5.0	23	340	2.5	---	---	---	10	269	22.2	20	270	9.2	11	297	12.3	28	285	6.1	20	266	7.3
5,000	18	281	7.9	28	272	8.6	14	276	6.6	25	274	12.6	23	294	17.8	25	272	5.1	23	332	2.4	---	---	---	---	---	---	17	276	10.4	---	---	---	26	286	8.8	14	267	10.5
6,000	17	285	9.2	27	273	11.1	---	---	---	21	274	13.4	20	294	20.4	25	273	4.8	21	308	3.1	---	---	---	---	---	---	15	271	11.1	---	---	---	25	284	10.5	---	---	---
8,000	16	282	10.9	22	266	15.9	---	---	---	13	278	8.9	11	304	19.8	19	300	4.2	16	306	6.7	---	---	---	---	---	---	13	265	18.6	---	---	---	21	291	11.9	---	---	---
10,000	12	299	17.0	14	262	16.5	---	---	---	13	293	8.6	---	---	---	14	278	4.1	15	316	9.3	---	---	---	---	---	---	---	---	---	---	---	---	18	285	13.3	---	---	---
12,000	10	308	19.2	10	255	21.0	---	---	---	10	286	13.5	---	---	---	---	---	---	10	286	9.7	---	---	---	---	---	---	---	---	---	---	---	---	11	284	19.3	---	---	---

Altitude (meters) m. s. l.	Ely, Nev. (1,910 m.)			Grand Junction, Colo. (1,413 m.)			Greensboro, N. C. (271 m.)			Havre, Mont. (767 m.)			Jacksonville, Fla. (16 m.)			Joliet, Ill. (178 m.)			Las Vegas, Nev. (573 m.)			Little Rock, Ark. (88 m.)			Medford, Oreg. (410 m.)			Miami, Fla. (12 m.)			Mobile, Ala. (66 m.)			Nashville, Tenn. (194 m.)			New York, N. Y. (15 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	31	238	0.6	31	330	2.9	29	241	0.9	30	267	1.5	31	54	3.0	26	258	2.7	31	55	1.2	29	189	0.4	30	322	0.5	31	92	1.5	30	44	1.8	30	291	0.9	29	253	2.4
500	---	---	---	---	---	---	29	245	2.0	---	---	---	30	55	3.5	26	267	4.4	---	---	---	29	238	1.1	30	318	0.6	31	81	2.4	30	29	1.8	30	274	1.5	29	251	5.1
1,000	---	---	---	---	---	---	29	250	3.4	30	269	3.3	28	40	2.2	26	270	6.3	31	92	1.7	29	255	1.8	30	62	0.3	31	68	2.0	29	10	2.8	29	249	2.1	27	267	8.0
1,500	---	---	---	31	328	2.9	29	272	4.8	30	265	5.2	27	360	1.3	23	278	9.7	31	146	0.9	29	265	3.2	30	194	1.0	31	63	1.1	26	24	3.3	26	267	3.3	26	282	10.2
2,000	31	224	0.8	31	308	2.7	27	295	6.8	29	264	6.6	24	343	2.2	21	286	11.2	31	202	1.6	26	274	4.1	29	180	2.0	30	299	0.3	25	29	3.2	25	278	4.1	20	284	11.0
2,500	31	206	1.8	31	280	2.5	27	296	7.9	25	271	9.1	23	339	2.3	17	289	13.6	31	214	2.4	25	279	3.8	24	171	1.5	27	186	0.4	21	354	2.1	23	286	5.1	15	280	11.9
3,000	31	202	2.5	31	258	3.2	27	295	8.9	22	277	10.4	22	309	2.7	15	296	14.1	28	223	3.1	24	283	4.8	22	102	0.2	26	169	0.7	21	313	2.1	23	285	6.3	13	276	13.6
4,000	27	240	3.3	27	245	5.5	25	291	11.2	16	282	11.6	22	273	3.1	---	---	---	27	233	3.8	21	300	6.6	20	90	1.0	20	255	3.8	15	289	3.1	22	300	9.2	---	---	---
5,000	21	243	4.8	25	267	5.5	24	288	13.7	11	279	13.6	20	285	4.5	---	---	---	24	245	5.6	21	292	9.7	17	80	0.7	13	255	7.6	11	276	5.5	18	297	10.4	---	---	---
6,000	19	255	3.5	21	281	7.9	24	289	13.7	---	---	---	17	268	7.2	---	---	---	22	247	6.0	19	305	12.2	14	100	0.5	11	260	6.4	10	287	6.6	17	301	12.5	---	---	---
8,000	16	240	6.0	10	254	5.2	17	287	12.0	---	---	---	15	264	10.9	---	---	---	21	251	11.5	14	296	13.3	---	---	---	---	---	---	---	---	---	15	303	14.3	---	---	---
10,000	13	320	5.0	---	---	---	13	273	14.7	---	---	---	11	292	12.8	---	---	---	15	274	13.4	11	299	20.0	---	---	---	---	---	---	---	---	---	12	315	12.9	---	---	---
12,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	265	17.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Altitude (meters) m. s. l.	Oakland, Calif. (8 m.)			Oklahoma City, Okla. (396 m.)			Omaha, Nebr. (306 m.)			Phoenix, Ariz. (338 m.)			Rapid City, S. Dak. (982 m.)			St. Louis, Mo. (181 m.)			St. Paul, Minn. (225 m.)			San Antonio, Tex. (240 m.)			San Diego, Calif. (15 m.)			Sault St. Marie, Mich. (225 m.)			Seattle, Wash. (116 m.)			Spokane, Wash. (603 m.)			Washington, D. C. (24 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	29	283	3.3	29	195	3.0	31	213	2.3	31	181	0.6	31	343	4.5	31	247	1.1	31	267	2.8	29	118	1.3	30	283	4.2	29	281	3.4	27	248	1.9	30	223	1.4	28	255	2.4
500	27	284	1.9	29	193	3.1	31	209	3.0	31	173	0.8	---	---	---	31	232	2.1	31	270	3.4	29	114	1.3	30	297	3.1	29	278	4.3	27	235	1.8	---	---	---	28	261	4.7
1,000	25	143	0.2	28	200	3.2	31	239	4.1	31	155	1.4	31	343	4.6	30	245	3.3	30	266	5.0	29	118	1.4	24	225	0.8	27	277	6.2	22	247	2.1	30	223	3.4	26	267	6.6
1,500	24	152	1.1	26	223	4.2	28	269	5.5	31	134	0.9	31	323	5.3	29	268	5.7	28	276	6.6	28	183	1.1	22	162	2.0	18	272	7.4	19	242	2.2	30	239	4.4	26	279	8.0
2,000	23	185	0.5	25	241	5.3	27	276	7.6	30	169	1.2	31	301	5.6	28	278	8.0	26	287	9.2	25	248	2.1	22	166	2.6	16	280	8.5	18	237	3.8	27	250	5.3	25	288	9.9
2,500	23	179	1.2	25	256	6.5	26	291	10.0	30	188	1.5	30	293	6.9	27	284	11.3	26	288	10.7	22	276	2.8	20	187	3.1	13	282	11.7	15	246	4.0	24	256	6.9	24	293	10.7
3,000	23	173	2.4	25	263	7.1	25	296	10.8	30	207	2.2	27	293	9.4	26	281	11.8	24	289	12.9	21	281	4.3	20	211	3.9	12	283	14.7	11	290	2.4	19	268	6.2	24	291	12.0
4,000	20	221	3.1	23	284	7.6	24	301	14.4	29	232	4.4	21	290	11.4	21	287	15.7	23	288	16.3	19	271	5.3	16	231	7.1	10	291	18.2	10	291	4.4	17	271	7.0	23	288	13.5
5,000	18	220	4.3	21	294	8.5	19	288	16.8	25	245	7.0	20	295	12.4	19	291	15.3	19	290	16.8	15	269	6.8	16	244	10.1	---	---	---	---	---	---	17	290	7.3	22	292	14.5
6,000	16	222	4.3	21	293	9.3	16	285	15.4	21	247	11.0	20	290	12.4	16	290	15.5	17	293	17.4	12	277	6.5	14	260	11.6	---	---	---	---	---	---	17	285	9.1	18	285	14.6
8,000	10	276	7.1	14	290	10.8	---	---	---	16	252	14.8	16	305	11.4	13	289	16.4	13	300	18.7	---	---	---	---	---	---	---	---	---	---	---	---	11	305	10.5	11	284	11.2
10,000	---	---	---	---	---	---	---	---	---	13	254	20.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12,000	---	---	---	---	---	---	---	---	---	10	266	26.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 3.—*Maximum free-air wind velocities (m. p. s.) for different sections of the United States based on pilot balloon observations during October 1945*

Section	Surface to 2,500 meters (m. s. l.)					Above 2,500 to 5,000 meters (m. s. l.)					Above 5,000 meters (m. s. l.)				
	Maximum velocity	Direction	Altitude (m.) m.s.l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m.s.l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m.s.l.	Date	Station
Northeast [1]	44.8	SW.	992	31	Toledo, Ohio	45.8	NNW.	4,636	16	Philipsburg, Pa	70.8	SW.	8,757	9	Portland, Maine.
East-Central [2]	39.8	WNW.	2,492	27	Elkins, W. Va	54.0	WNW.	4,699	26	Lynchburg, Va	74.4	W.	13,434	11	Richmond, Va.
Southeast [3]	28.0	WSW.	2,471	23	Charleston, S. C	26.0	SW.	4,687	16	Miami, Fla	45.0	W.	9,301	10	Charleston, S. C.
North-Central [4]	38.3	WSW.	1,387	30	Milwaukee, Wis	44.0	W.	4,782	20	Alpena, Mich	72.4	NW.	6,907	11	International Falls, Minn.
Central [5]	41.0	WSW.	2,485	27	Kansas City, Mo	46.5	NW.	4,436	8	Omaha, Nebr	61.0	W.	9,843	2	Goodland, Kans.
South-Central [6]	36.5	NNE.	818	22	Tulsa, Okla	29.2	WNW.	4,027	14	Dallas, Tex	65.1	W.	11,781	23	Big Spring, Tex.
Northwest [7]	41.0	W.	2,297	19	Havre, Mont	45.4	W.	3,586	25	Butte, Mont	72.8	WNW.	8,295	21	Glasgow, Mont.
West-Central [8]	39.6	WNW.	2,489	25	Cheyenne, Wyo	38.5	NW.	5,000	18	Sheridan, Wyo	68.4	WSW.	15,902	3	Denver, Colo.
Southwest [9]	37.9	SW.	2,500	29	Santa Maria, Calif	38.0	SW.	2,503	29	Santa Maria, Calif	62.0	WSW.	13,542	1	Raton, N. Mex.

[1] Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, and northern Ohio.
[2] Delaware, Maryland, Virginia, West Virginia, southern Ohio, Kentucky, eastern Tennessee, and North Carolina.
[3] South Carolina, Georgia, Florida, and Alabama.
[4] Michigan, Wisconsin, Minnesota, North Dakota, and South Dakota.
[5] Indiana, Illinois, Iowa, Nebraska, Kansas, and Missouri.
[6] Mississippi, Arkansas, Louisiana, Oklahoma, Texas (except El Paso), and western Tennessee.
[7] Montana, Idaho, Washington, and Oregon.
[8] Wyoming, Colorado, Utah, northern Nevada, and northern California.
[9] Southern California, southern Nevada, Arizona, New Mexico, and extreme west Texas.

LATE REPORT FOR SWAN ISLAND, WEST INDIES

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidity in percent obtained by radiosondes during September 1945*

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

Altitude (meters) m. s. l.	Swan Island, West Indies (10 m.)				Altitude (meters) m. s. l.	Swan Island, West Indies (10 m.)			
	Number of observations	Pressure	Temperature	Relative humidity		Number of observations	Pressure	Temperature	Relative humidity
Surface	30	1,011	26.4	86	7,000	28	432	−13.0	59
500	30	957	23.6	83	8,000	26	378	−19.5	60
1,000	30	903	20.8	79	9,000	25	330	−26.5	.....
1,500	30	853	18.2	72	10,000	24	287	−34.1	.....
2,000	30	804	15.4	68	11,000	24	248	−42.2	.....
2,500	30	758	12.7	65	12,000	24	213	−50.6	.....
3,000	30	714	9.8	64	13,000	23	182	−59.0	.....
4,000	30	632	3.9	64	14,000	21	155	−66.6	.....
5,000	30	558	−1.7	61	15,000	15	132	−72.6	.....
6,000	28	492	−7.0	56	16,000	8	110	−76.9	.....

RIVER STAGES AND FLOODS FOR OCTOBER 1945

By C. R. JORDAN

Precipitation during October averaged less than normal in most of the States. It was particularly dry in Virginia and in the Central and North-central States. The State of Iowa experienced the driest October of record, where precipitation averaged 16 percent of normal, or 0.34 inch. Rainfall was much above normal in the Southwest; from Texas eastward through Georgia; Tennessee; and in Michigan, Ohio, New York, and New England.

During the 6-month period ending with October, precipitation was above normal in every State except Kentucky, New Mexico, Arizona, north Dakota, Montana, and Washington, with a nation-wide average of 117 percent. The greatest departures from normal were Nevada, with 174 percent, and New Mexico, with 72 percent.

Run-off was generally above normal for October, representing, in many cases, carry-over from recharge of previous months. The greatest flood in several years was reported in the upper Mohawk River Basin in central New York, where damage was reported to be in the neighborhood of $1,000,000. Streams along the South Atlantic Coast receded slowly during the month, and the streams in Arkansas and Oklahoma fell steadily from high stages observed in late September and the opening days of October.

Atlantic Slope drainage.—The greatest flood of record in the upper Mohawk River Basin since the completion of the new State Barge Canal system about 1918, occurred on October 1–3, 1945. The following report of the flood was received from Mr. E. J. Christie, Weather Bureau Office, Albany, N. Y.:

A mass of cold polar air influenced the weather over New York State during the last 2 days of September 1945. On Monday, October 1, the cold air mass had moved eastward, and the main body of it overlay New England as it was being overrun from the southwest by a mass of warm and moist air which converged over western New York and eastward over the headwaters of the Mohawk River and on up over the central and southern Adirondack Mountains. The precipitation pattern caused by this flow of air followed that of no less than five September storms, most of them bringing copious rainfall. Rain began in the early morning of Monday, October 1, and continued steadily all day and night. The rain gage chart from the recording gage at Utica Airport showed the period to be just 24½ hours when any rain of consequence fell—6:00 a. m. on the 1st to 6:30 a. m. on the 2d. The rain fell with interesting uniformity as regards its intensity, the graph resulting from it as pictured on the rain gage chart being almost a straight-line progression during the time period indicated above. The amounts reported each successive 6 hours from the weather stations at the Rome Air Depot and the Utica Airport also bear this out.

Due to the heavy rainfall over this same area in September, reservoirs were at high levels prior to the storm, the ground water level was near its maximum, and the surface fairly well saturated from the most recent heavy storm on the 28th of September. Therefore, the run-off was especially high for this type of storm, and, with no storage of consequence to control it, the streams rose steadily. By Tuesday morning, a severe flood was in progress in all the headwater creeks and streams. The Delta Dam was spilling more water than at any time since its construction; the West Branch of the Mohawk River, as well as Oriskany Creek, East and West Canada Creeks, and all other small tributaries, had reached highest levels since 1913. Due to the fact that only light rain fell in the Schoharie Creek watershed, the lower Mohawk Valley escaped without damage from flooding, and at Schenectady and Cohoes, the flow was only of moderate capacity and height.

Damage from the flooding is estimated to have been in the neighborhood of one million dollars and was about equally divided among industry, transportation, agriculture, utilities, and miscellaneous. In only a very few localities was it necessary for the inhabitants to move to safer ground, but many basements were filled or partially filled.

The amounts of rainfall during the storm period, as reported from stations in and adjacent to the upper Mohawk River watershed, were as follows:

Station	Inches	Station	Inches
Highmarket	5.03	Hoffmeister	4.41
Booneville	4.37	Stewarts Landing	3.95
Rome	4.51	Sprite Creek	3.92
Hinckley	5.20	Inghams	3.09
Trenton Falls	4.70	Little Falls	2.84
Utica Airport	3.92	Pecks Pond	3.99
Utica	4.38	Cloversville	3.62

No flood stages occurred at official Weather Bureau stations, but in order to present a picture of the magnitude of this high-water period and a comparison with some of the previous records, some

of the maximum gage heights have been secured from the U. S. Geological Survey. They are tabulated as follows:

River and station	Maximum stage previously known: Stage	Maximum stage previously known: Date	Maximum stage during October: Stage	Maximum stage during October: Date
Mohawk River:				
Below Delta Dam	8.1	Mar. 9, 1935	11.2	2
Below Little Falls	17.2	Mar. 18, 1936	17.8	3
West Canada Creek:				
Below Hinckley Dam	8.9	Apr. 12, 1922	12.9	2
At Kast Bridge	7.3	June 21, 1922	8.1	2
East Canada Creek:				
At Dolgeville	11.8	Mar. 18, 1936	15.1	2

All of the previous records, however, have been established at U. S. Geological Survey gaging stations subsequent to 1913, and the flood of that year, as well as those of 1902, 1901, and the memorable one of 1869, is known to have been considerably in excess of this October 1945 flood. Records of the State Engineer show that in the 1913 flood the discharge at Little Falls was 32,400 c. f. s., while the measured flow at the crest of this last flood was 24,500 c. f. s.

There was some light overflow in a few of the headwater tributaries of the Susquehanna River during the first few days of the month. The streams along the South Atlantic Coast fell steadily from the high flood stages that were reached in late September.

Ohio Basin.—A general rise occurred in the Allegheny River early in October but flood stage was not reached except at Olean, N. Y., where bankfull stage was exceeded only slightly on the 3d. Moderate overflow occurred in the Wabash River Basin in Indiana during the first week of the month.

Arkansas Basin.—Considerable damage was reported in Kansas, Oklahoma, and Arkansas as a result of floods caused by heavy rains in this area during the last week of September. The streams crested during the first few days of October and receded rapidly thereafter. Crest stages were not unusually high but damage of approximately one million dollars, mostly to county roads and fences and to wheat crops, was reported in Kansas, and in Oklahoma it is estimated that damage amounted to approximately one and one-half millions of dollars. The spinach crop in Oklahoma suffered a loss estimated at 50 percent of the total crop, and considerable loss occurred to the corn crop in the Verdigris Basin.

West Gulf of Mexico drainage.—A rainy period from October 4–9 over the upper Trinity River watershed caused the East Fork of the Trinity River to overflow near Rockwall, Tex. At Carrollton, Tex., on the Elm Fork, and at Dallas, Tex., on the main stem of the Trinity, the streams barely reached flood stage. No damage of consequence resulted.

Pacific Slope drainage.—The following report of a flash flood near Tehachapi, Calif., was received from Mr. Edward E. Wilson, Weather Bureau Office, Bakersfield, Calif.:

A cloudburst near Tehachapi, Calif., on October 6, 1945, caused considerable local damage; 2.75 inches of rain fell at Tehachapi in 1½ hours. Rainfall intensity in nearby mountains was evidently greater.

A wall of water, estimated 8 feet high, swept down Tehachapi Canyon, killing three people and causing property damage estimated at $20,000. Property damage at Tehachapi is estimated at $30,000. Several hundred feet of railroad track at Keene and near Calente, Calif., was washed out at an estimated damage of $12,000, making a total estimated damage of $62,000. Transportation (both rail and highway) and communication lines were shut down for 24 hours.

The water, after being released into the valley from the narrow canyons, did no appreciable damage.

The Kings River at Piedra, Calif., was slightly above flood stage on October 30, but the water was diverted into canals and no damage resulted.

FLOOD STAGE REPORT FOR OCTOBER 1945

[All dates in October unless otherwise indicated]

River and station	Flood stage	Above flood stages—dates: From—	Above flood stages—dates: To—	Crest [1]: Stage	Crest [1]: Date
ATLANTIC SLOPE DRAINAGE					
	Feet			*Feet*	
Tioughnioga: Whitney Point, N. Y.	12	2	3	12.2	2
Chenango: Sherburne, N. Y.	8	2	3	9.0	2
Susquehanna:					
Oneonta, N. Y.	12	2	4	13.2	2
		9	10	12.8	9
Vestal, N. Y.	14	3	3	14.1	3
Roanoke: Williamston, N. C.	10	Sept. 21	4	15.0	Sept. 26
Neuse:					
Goldsboro, N. C.	14	Sept. 18	2	26.7	Sept. 23
Kinston, N. C.	14	Sept. 20	5	22.4	Sept. 27
				8.8	Sept. 19
Waccamaw: Conway, S. C.	7	Sept. 17	9	11.2	Sept. 29–30
PeeDee: Mars Bluff Bridge, S. C.	17	Sept. 17	.....	31.3	Sept. 22
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Rock: Moline, Ill.	10	2	4	10.1	2-4
Missouri Basin					
Osage: Bagnell Dam (Lakeside), Mo.	60	8	8	60.0	8
Ohio Basin					
Allegheny: Olean, N. Y.	10	3	3	10.2	3
West Fork:					
Anderson, Ind.	10	2	3	10.4	2
Elliston, Ind.	18	3	5	18.7	4
Edwardsport, Ind.	12	Sept. 28	9	15.3	Sept. 30
				17.0	6
White: Hazleton, Ind.	16	3	7	16.4	5
Wabash:					
Wabash, Ind.	12	1	3	15.1	2
Lafayette, Ind.	11	1	6	18.1	3
Covington, Ind.	16	2	8	20.2	5
Terre Haute, Ind.	14	4	9	15.4	7
Arkansas Basin					
Walnut: Winfield, Kans.	30	Sept. 28	2	35.0	Sept. 30
Verdigris:					
Independence, Kans.	36	Sept. 29	3	41.6	2
Claremore, Okla.	38	Sept. 27	9	47.0	4
Cottonwood:					
Cottonwood Falls, Kans.	9	Sept. 29	Sept. 29	12.0	Sept. 29
Emporia, Kans.	20	Sept. 29	3	25.2	1
Neosho:					
Neosho Rapids, Kans.	22	Sept. 29	3	24.6	2
Burlington, Kans.	27	Sept. 30	4	31.1	3
LeRoy, Kans.	23	Sept. 30	5	24.8	1, 4
Iola, Kans.	15	Sept. 29	6	18.0	1
Chanute, Kans.	20	Sept. 29	6	23.1	3
Parsons, Kans.	22	Sept. 30	6	24.5	2-4
Oswego, Kans.	17	Sept. 30	8	21.4	2
Arkansas:					
Arkansas City, Ark.	16	Sept. 28	1	19.7	Sept. 30
Ralston, Okla.	16	Sept. 29	3	19.4	2
Tulsa, Okla.	12	Sept. 29	4	16.7	1
Webbers Falls, Okla.	23	Sept. 28	9	29.0	2
				24.1	6
Fort Smith, Ark.	22	Sept. 28	10	28.8	3
Van Buren, Ark.	22	Sept. 28	11	29.4	3
Ozark, Ark.	22	1	6	25.8	3
Dardanelle, Ark.	22	Sept. 29	10	27.7	4
Morrilton, Ark.	20	2	7	21.6	4
Red Basin					
Little: Whitecliffs, Ark.	25	3	5	25.5	4
Lower Mississippi Basin					
St. Francis:					
Fisk, Mo.	20	24	28	21.6	26
St. Francis, Ark.	18	1	10	18.8	2-3
WEST GULF OF MEXICO DRAINAGE					
Elm Fork: Carrollton, Tex.	6	10	10	6.3	10
East Fork: Rockwall (near), Tex.	10	9	12	16.7	10
Trinity: Dallas, Tex.	28	11	11	28.4	11
PACIFIC SLOPE DRAINAGE					
San Joaquin Basin					
Kings: Piedra, Calif.	10	30	30	10.8	30

[1] Provisional.

CLIMATOLOGICAL DATA FOR OCTOBER 1945

CONDENSED CLIMATOLOGICAL SUMMARY OF TEMPERATURE AND PRECIPITATION BY SECTIONS

[For description of tables and charts, see REVIEW, January 1943, p. 15]

In the following table are given for the various sections of the climatological service of the Weather Bureau the monthly average temperature and total rainfall; the stations reporting the highest and lowest temperatures, with dates of occurrence; the stations reporting the greatest and least total precipitation; and other data as indicated by the several headings.

The mean temperature for each section, the highest and lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperatures and precipitation are based only on records from stations that have 10 or more years of observations. Of course, the number of such records is smaller than the total number of stations.

Section	Temperature								Precipitation					
	Section average	Departure from the normal	Monthly extremes						Section average	Departure from the normal	Greatest monthly		Least monthly	
			Station	Highest	Date	Station	Lowest	Date			Station	Amount	Station	Amount
	°F.	°F.		°F.			°F.		In.	In.		In.		In.
Alabama	64.0	−0.8	Wetumpka	95	1	2 stations	31	1 10	3.72	+0.83	Leeds	8.32	Wheeler Dam	1.10
Arkansas	60.8	−2.0	Perryville	89	30	Lead Hill	29	25	3.11	−.06	Pine Bluff	10.35	Evening Shade	.41
California	61.8	+1.3	Brawley	109	4	Doyle	10	24	2.81	+1.53	Vollmers	15.25	2 stations	.00
Colorado	48.9	+1.9	3 stations	90	7	Alamosa (Airport)	−10	24	1.00	−.18	Trout Lake	3.30	Haxtum	T
Florida	73.4	+.4	Cedar Key	95	1	2 stations	37	17	3.81	−.34	Coconut Grove	13.72	Orange Springs	.44
Georgia	63.3	−1.6	2 stations	95	2	Blairsville	29	1 17	2.90	+.27	Clayton	6.39	Camp Stewart	1.10
Idaho	49.7	+2.4	Hazelton	91	2	Landmark	−2	19	1.18	−.31	Deception Creek	8.40	Dubois Airport	T
Illinois	54.0	−1.7	East St. Louis	84	30	Freeport	24	25	1.66	−.96	Belvidere	4.47	Galva	.08
Indiana	53.4	−1.6	Tell City	84	28	Frankfort	23	15	2.39	−.36	Goshen	4.79	Gary	.84
Iowa	51.8	0.0	Missouri Valley	89	18	2 stations	15	22	.33	−1.99	Cedar Rapids	1.42	3 stations	T
Kansas	57.4	+.1	2 stations	93	7	Burr Oaks	14	22	.81	−1.14	Oswego	3.27	Cawker City	.17
Kentucky	56.7	−1.6	Pikesville	91	1	Farmers	23	27	2.04	−.59	Mayfield	4.66	Beaver Dam	.88
Louisiana	66.8	−1.7	New Roads	95	1	Camp Beauregard	35	1 16	5.50	+2.21	Ruston	10.09	Burrwood	1.58
Maryland-Delaware	55.6	−.7	Cumberland, Md	85	18	Oakland, Md	23	11	1.59	−1.47	Snow Hill, Md	4.30	Mount Savage Summit, Md.	.30
Michigan	47.1	−1.6	Kenton	84	18	Kenton	11	23	2.79	+.09	Monroe	5.53	Painsdale	.73
Minnesota	45.8	−.7	2 stations	89	1 17	2 stations	10	31	.45	−1.36	Grand Rapids	1.25	2 stations	T
Mississippi	64.0	−1.5	do	94	1	do	33	17	4.26	+1.67	Woodville	7.98	Durant	.59
Missouri	56.8	−.9	6 stations	85	1 12	Tarkio	23	22	2.18	−.76	Fredericktown	7.08	Tarkio	.18
Montana	47.9	+2.7	2 stations	89	1 3	Wisdom	0	21	.92	−.14	Belton	4.18	East Helena	T
Nebraska	53.7	+1.8	Butte	93	16	Ewing	10	22	.20	−1.23	Hastings	1.46	22 stations	.00
Nevada	54.2	+3.4	2 stations	98	1 2	2 stations	8	1 21	1.31	+.67	Pioche	3.75	Boulder City	.20
New England	47.9	−1.5	Shelbourne Falls, Mass.	86	19	do	15	29	3.53	+.02	Waterbury, Vt. (near)	7.90	Millbury, Mass	1.53
New Jersey	54.2	−.4	Canoe Brook	86	19	Layton	21	4	2.51	−1.11	Elizabeth	3.89	Clinton	1.39
New Mexico	54.3	+.6	Hagerman	92	31	Red River	−15	24	1.07	−.09	Carlsbad	6.13	3 stations	.00
New York	48.9	−1.0	Poughkeepsie	84	19	Lake Placid Club	16	4	4.87	+1.53	Big Moose	10.20	Bedford Hills	1.76
North Carolina	59.3	−.7	Willard	90	24	Mount Mitchell	20	9	2.46	−.79	Mount Mitchell	5.62	Enfield	.72
Ohio	52.3	−1.3	Ironton	87	1	Jackson	23	27	2.80	+.27	Jefferson	6.30	2 stations	1.16
Oklahoma	61.4	−1.1	Purcell	93	12	Beaver	23	22	1.19	−1.84	Idabel	5.24	Mutual	.00
Oregon	51.3	+1.5	Riddle	98	1	Fremont	0	24	1.39	−.53	Brookings	7.87	Crescent Lake	.09
Pennsylvania	51.0	−1.5	4 stations	85	1 1	Phillipsburg	20	11	2.75	−.52	Pennline	6.96	Hyndman	.50
South Carolina	63.0	−.8	Walterboro	92	2	Pickens	31	16	1.70	−1.15	Longcreek	5.19	Blackville	.37
South Dakota	50.5	+1.7	Faith	93	3	Pollock	7	23	.25	−.90	Spearfish	1.29	7 stations	.00
Tennessee	58.3	−1.5	Lynnville	89	1	Gatlinburg	23	16	2.96	+.16	Samburg	5.77	Red Boiling Springs	1.29
Texas	65.6	−2.1	Cuero	97	5	Dalhart	24	24	3.59	+.90	Flint	10.61	Perryton	.13
Utah	52.0	+2.8	Green River	90	7	Silver Lake (Brighton)	5	23	1.27	+.13	Cedar Breaks	3.70	Payson	.08
Virginia	56.5	−.9	Chatham	92	20	Burkes Garden	21	10	1.42	−1.56	Onley	4.48	Dale Enterprise	.12
Washington	51.3	+1.2	3 stations	89	1 1	Omak Airport	13	1 18	2.87	−.29	Spruce	15.68	Richland	.35
West Virginia	53.1	−1.5	Madison	95	1	Pickens	15	1 27	1.65	−1.20	Bluefield	3.52	Franklin	.28
Wisconsin	46.8	−1.5	Mellen	85	18	Danbury	14	31	.90	−1.50	Deerskin Dam	2.78	Dodgeville	.15
Wyoming	47.6	+3.7	Morrisey	87	10	Foxpark	−11	24	.54	−.54	Grassy Lake Dam	3.43	Morrisey	.00
Alaska (September)	44.2	+.1	Tree Point	78	1	Puntilla	16	16	4.07	+.45	Spencer	24.34	Wainwright	.03
Hawaii	74.2	+.4	3 stations	92	1 8	Haleakala Ranger Station.	39	21	4.43	−1.21	Iliiliula Intake	21.00	2 stations	.00
Puerto Rico	77.7	−.7	Utuado	95	1 10	Cayey	55	1 15	5.15	−2.42	Guineo Dam	14.29	Ensenada	29

1 Other dates also.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR OCTOBER 1945

District and station	Elevation of instruments: Barometer above sea level	Thermometer above ground	Anemometer above ground	Pressure: Station	Sea level	Departure from normal	Temperature of the air: Mean	Departure from normal	Maximum	Date	Mean maximum	Minimum	Date	Mean minimum	Greatest daily range	Total degree days	Mean temperature of the dew point	Mean relative humidity	Precipitation: Total	Departure from normal	Greatest in 24 hours	Days with 0.01 inch or more	Wind: Average hourly velocity	Prevailing direction	Maximum velocity: Miles per hour	Direction	Date	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms
NEW ENGLAND	*Ft.*	*Ft.*	*Ft.*	*Mb.*	*Mb.*	*Mb.*	°*F.*	°*F.*	°*F.*		°*F.*	°*F.*		°*F.*	°*F.*		°*F.*	%	*In.*	*In.*	*In.*		*Mi.*								*0–10*	*In.*	*In.*	
							49.8	−0.9										81	3.53	+0.2											5.9			
Eastport	75	67	85	1,010.8	1,013.9	−2.0	46.9	−.6	65	20	53	30	29	41	21	559	40	82	6.37	+2.8	2.07	16	11.0	sw.	33	sw.	31	5	9	17	6.9	T	0.0	1
Greenville, Maine	1,070	6	41	974.3	1,014.6	----	41.0	−3.5	68	19	51	19	29	31	37	741	36	---	5.28	+1.7	2.02	16	---	s.	---	---	---	2	10	19	---	1.7	0	0
Portland, Maine [1]	103	5	43	1,010.2	1,014.6	−2.7	45.8	−4.2	75	8	56	22	29	35	34	593	40	86	5.52	+2.4	3.07	14	8.6	w.	30	s.	31	7	11	13	6.1	T	.0	2
Concord [1]	289	5	45	1,004.1	1,015.2	−2.4	47.0	−.8	81	19	60	20	29	34	45	556	40	84	2.68	−.2	.52	13	7.1	nw.	30	nw.	3	8	6	17	6.5	T	.0	1
Burlington [1]	403	5	51	998.6	1,013.9	−3.4	46.8	−2.4	75	19	56	27	4	38	34	565	39	80	4.55	+1.6	1.23	19	10.6	s.	35	s.	29	4	9	18	7.3	T	.0	1
Boston [1]	124	33	62	1,010.5	1,015.6	−2.0	53.1	−.5	84	19	62	34	29	44	36	368	42	74	2.23	−.9	.88	12	11.6	sw.	38	sw.	31	9	10	12	5.9	.0	.0	2
Nantucket	12	11	59	1,014.9	1,015.9	−1.7	54.6	+.4	72	2	60	40	29	49	21	326	47	82	2.97	−.4	1.79	14	12.2	sw.	38	ne.	24	11	11	9	5.0	.0	.0	1
Block Island	26	11	46	1,014.2	1,015.6	−2.0	54.7	−.2	70	2	60	40	4	49	18	319	48	80	2.31	−1.2	1.24	11	16.4	sw.	47	nw.	26	16	6	9	4.5	.0	.0	1
Providence [2]	159	46	60	1,009.5	1,015.9	−1.7	53.8	+1.6	81	19	64	32	4	44	37	352	44	80	2.29	−.8	.92	10	8.4	sw.	34	sw.	31	9	10	12	5.7	.0	.0	1
Hartford [1]	159	5	44	------	1,015.2	−2.8	51.1	−.1	81	19	63	27	4	39	---	432	42	80	2.09	−1.4	.58	13	7.5	s.	36	sw.	31	9	10	12	----	.0	.0	0
New Haven [1]	107	5	39	1,011.9	1,016.3	−1.7	52.6	+.8	73	19	62	29	4	43	30	387	46	79	2.49	−.9	.74	10	6.8	sw.	28	sw.	2	10	8	13	5.6	T	.0	2
MIDDLE ATLANTIC							55.2	−0.1										76	1.88	−1.1										4.8			
Albany [1]	97	26	40	1,011.2	1,015.2	−2.8	48.8	−.5	79	19	60	26	4	38	38	502	41	80	2.25	−.2	.85	12	9.8	s.	30	w.	3	10	6	15	6.0	.0	.0	0
Binghamton [2]	871	60	79	983.7	1,016.6	−1.4	49.9	−.1	80	19	61	28	4	39	42	468	40	83	3.70	+.7	1.12	17	6.5	w.	21	w.	2	8	8	15	6.1	T	.0	0
New York	314	415	454	1,004.4	1,016.3	−1.7	56.2	−.1	79	19	64	38	4	48	25	276	44	67	1.99	−1.5	.53	10	14.9	nw.	53	nw.	26	12	9	10	5.2	.0	.0	4
Harrisburg [1]	374	30	49	1,003.4	1,017.3	−1.3	53.9	−.9	82	19	65	31	4	42	40	345	42	73	1.07	−1.9	.35	9	7.1	w.	26	nw.	27	13	8	10	5.3	.0	.0	0
Philadelphia [1]	114	5	57	1,012.5	1,017.3	−1.0	57.2	−.6	80	19	65	38	15	49	26	245	44	82	1.90	−.9	.96	7	6.9	sw.	20	nw.	27	13	9	9	4.7	.0	.0	0
Reading	323	47	306	1,005.1	1,017.6	-----	55.0	−.4	83	19	65	34	4	45	39	312	-----	---	1.77	−1.4	.95	9	9.8	nw.	40	w.	26	12	11	8	4.9	.0	.0	0
Scranton	805	72	104	986.8	1,016.9	−1.4	51.0	−.9	79	19	61	29	4	41	36	434	-----	---	3.29	+.3	.97	14	6.2	sw.	28	nw.	26	10	10	11	5.3	.0	.0	0
Atlantic City	52	37	172	1,014.9	1,017.3	−1.0	57.6	+.7	76	18	65	35	15	50	22	229	50	80	2.69	−.5	1.21	7	14.3	s.	36	w.	9	12	7	12	5.2	.0	.0	1
Trenton	190	89	107	1,009.5	1,016.9	----	55.2	−.4	79	19	64	35	4	46	29	306	45	76	2.22	−.6	.86	9	7.9	s.	26	nw.	26	11	10	10	5.2	.0	.0	3
Baltimore [2]	123	100	215	1,012.9	1,017.6	−1.0	58.7	+.5	82	18	68	38	15	50	34	206	46	72	1.18	−1.7	.55	5	9.1	sw.	30	nw.	9	18	6	7	3.9	.0	.0	0
Washington [2]	112	56	100	1,013.2	1,017.6	−1.0	57.4	.0	82	29	68	35	15	47	38	240	46	74	1.46	−1.4	.49	6	5.9	nw.	23	nw.	27	17	8	6	4.0	.0	.0	1
Cape Henry	18	8	54	1,016.6	1,017.6	----	63.3	+1.2	85	2	70	47	28	57	27	96	52	74	1.34	−1.7	.48	8	12.2	n.	37	nw.	2	14	11	6	4.2	.0	.0	1
Lynchburg [1]	686	4	50	993.2	1,018.3	−.7	57.0	−.2	81	18	68	34	16	46	37	251	45	75	.90	−2.2	.47	8	7.0	s.	25	nw.	8	17	7	7	3.9	.0	.0	1
Norfolk [2]	91	80	125	1,014.9	1,018.6	+.2	62.9	+.4	83	18	71	43	16	55	29	107	52	78	1.32	−1.7	.61	8	8.8	sw.	25	n.	9	14	9	8	4.5	.0	.0	1
Richmond	144	11	52	1,012.5	1,018.0	−.6	59.2	−.4	85	18	71	35	16	48	41	193	48	77	1.06	−1.8	.56	9	7.0	sw.	24	w.	26	17	6	8	4.2	.0	.0	1
SOUTH ATLANTIC							63.3	−0.3										80	2.06	−1.2										4.2			
Asheville	2,253	77	92	939.7	1,019.3	+.3	55.5	+.2	78	18	68	32	10	43	40	299	44	76	2.95	+.2	1.35	8	6.6	nw.	28	nw.	8	15	8	8	4.1	.0	.0	0
Charlotte [2]	779	63	86	990.2	1,018.6	.0	61.2	−.5	83	21	72	38	16	50	31	139	49	80	1.43	−1.5	.57	6	5.7	sw.	17	sw.	2	14	8	9	4.5	.0	.0	0
Greensboro [1]	886	6	56	986.8	1,019.3	-----	57.6	−.9	80	20	71	32	16	44	41	229	48	82	1.76	−1.3	1.25	7	6.4	sw.	21	sw.	2	16	10	5	3.9	.0	.0	1
Hatteras	11	5	50	1,016.9	1,017.6	−.4	65.8	−.1	83	2	72	48	28	60	24	55	58	82	3.46	−1.5	1.17	10	11.2	ne.	33	s.	23	13	9	9	4.5	.0	.0	2
Raleigh [1]	376	5	69	1,004.7	1,019.0	+.7	61.9	−1.0	82	21	72	38	16	50	29	154	50	84	1.90	−1.0	.90	4	6.2	sw.	20	sw.	23	16	8	7	3.9	.0	.0	0
Wilmington	72	73	107	1,015.2	1,018.0	.0	64.8	−.5	84	2	74	40	16	55	29	73	56	82	2.06	−1.2	.59	11	7.4	n.	29	s.	23	13	12	6	4.2	.0	.0	2
Charleston [2]	48	11	92	1,015.8	1,018.0	-----	66.9	−.9	89	2	74	45	16	59	23	45	56	87	2.98	−.3	1.53	4	9.4	n.	27	ne.	4	16	10	5	3.8	.0	.0	1
Columbia, S. C. [2]	347	70	91	1,005.4	1,018.3	.0	63.9	−.4	86	20	75	36	16	52	33	88	52	79	.69	−1.9	.30	5	6.5	n.	21	sw.	23	16	8	7	4.1	.0	.0	0
Greenville, S. C. [1]	1,040	18	36	981.0	1,018.6	-----	60.6	+.4	81	21	71	40	16	50	32	148	48	74	1.73	−1.4	.57	6	7.5	ne.	29	n.	9	15	9	7	4.1	.0	.0	0
Augusta [2]	182	62	77	1,011.2	1,018.0	−.3	63.9	−1.4	85	2	76	39	16	52	36	83	50	68	1.48	−1.0	.58	6	4.9	nw.	17	se.	22	16	8	7	4.0	.0	.0	0
Savannah [4]	65	73	152	1,015.2	1,017.6	.0	67.3	+1.6	92	2	78	44	17	57	37	46	57	81	1.72	−1.3	1.26	6	8.8	n.	27	sw.	23	11	11	9	4.6	.0	.0	0
Jacksonville [2]	43	86	110	1,015.2	1,017.3	+.7	70.6	−.5	91	2	79	48	17	62	30	17	62	86	2.58	−1.9	1.15	8	7.9	ne.	25	w.	23	11	14	6	4.6	.0	.0	0
FLORIDA PENINSULA							77.1	0.0										85	5.62	0.0										5.7			
Key West [2]	21	10	64	1,013.2	1,014.2	+.3	79.5	+.4	89	12	84	70	30	75	13	0	72	84	6.24	+.2	2.41	17	8.6	e.	27	se.	1	6	15	10	6.1	.0	.0	3
Miami [2]	25	242	249	1,013.2	1,014.6	−.3	76.7	−1.3	85	11	81	60	17	72	18	0	71	88	6.61	−1.1	2.22	15	12.1	e.	38	e.	27	3	15	13	6.7	.0	.0	3
Tampa [1]	35	6	43	1,013.9	1,015.6	+.4	75.2	+.9	90	2	83	55	17	67	23	0	67	84	4.01	+.9	2.63	7	9.8	ne.	33	sw.	23	7	15	9	5.3	.0	.0	6
EAST GULF							65.3	−1.1										80	3.58	+0.6										4.4			
Atlanta [1]	1,173	33	72	976.6	1,018.3	.0	61.4	−1.3	80	21	72	40	16	51	33	128	48	70	4.73	+2.0	3.21	7	8.1	nw.	30	nw.	25	15	8	8	4.3	.0	.0	1
Macon [2]	370	79	87	1,004.4	1,017.6	−.4	63.1	−1.4	85	13	75	39	16	51	38	98	50	72	3.18	+.8	1.47	5	6.1	n.	21	nw.	2	14	8	9	4.4	.0	.0	1
Apalachicola	35	11	51	1,015.2	1,016.6	-----	70.4	−.2	87	2	78	50	16	62	25	10	61	80	.99	−2.2	.80	5	8.5	ne.	25	e.	1	17	7	7	4.2	.0	.0	1
Pensacola	56	54	79	1,015.2	1,017.6	+.7	68.6	−1.3	87	2	77	49	16	60	28	23	57	78	2.41	−1.8	1.27	4	7.3	ne.	27	w.	25	15	9	7	4.3	.0	.0	3
Anniston	741	9	------	------	------	------	60.9	−2.1	80	1	72	36	10	49	37	147	-----	---	4.69	+2.1	2.08	6	----	se.	----	------	----	19	4	8	----	.0	.0	0
Birmingham [1]	700	5	62	993.2	1,018.6	+.3	61.4	−1.0	86	1	74	35	10	48	41	140	52	84	6.54	------	2.84	6	5.9	ne.	23	n.	22	12	12	7	4.4	.0	.0	2
Mobile [2]	57	86	161	1,015.6	1,018.0	+.7	67.3	−2.0	89	2	77	47	16	57	31	44	57	82	3.00	−.6	1.23	4	6.4	n.	25	sw.	22	12	8	11	5.0	.0	.0	2
Montgomery [2]	218	92	105	1,010.2	1,018.3	+.3	65.6	−1.0	88	1	76	45	10	55	31	67	54	82	3.08	+.6	1.12	5	5.9	n.	21	s.	22	16	6	9	4.3	.0	.0	0
Meridian [2]	375	67	92	1,004.7	1,018.6	+.6	64.0	−.3	90	1	76	40	17	52	38	94	53	83	4.11	+1.7	1.55	5	4.6	n.	17	n.	22	19	8	4	3.6	.0	.0	1
Vicksburg [2]	247	82	102	1,009.1	1,018.3	+.3	64.6	−2.1	87	1	74	42	16	55	27	90	53	92	6.85	+4.1	4.67	6	7.4	n.	21	w.	22	10	11	10	4.9	.0	.0	2
New Orleans [4]	53	50	84	1,015.2	1,017.3	+.4	70.6	+.6	88	2	78	56	27	63	23	8	60	76	2.77	−.5	.98	5	5.8	ne.	22	nw.	25	14	7	10	4.8	.0	.0	4
WEST GULF							67.2	−1.4										79	4.35	+1.2										5.0			
Shreveport [1]	249	5	64	1,009.1	1,018.0	+.4	65.0	−.6	86	20	76	43	26	54	33	81	56	81	6.90	+4.2	3.05	10	7.0	ne.	29	w.	21	14	4	13	5.0	.0	.0	3
Fort Smith	463	57	82	1,001.4	1,017.6	.0	60.8	−2.0	83	18	72	34	25	49	37	145	52	81	1.42	−1.6	.76	6	6.2	ne.	34	nw.	21	14	2	15	5.4	.0	.0	1
Little Rock [1]	357	26	58	1,005.8	1,018.6	+.6	61.4	−2.2	82	12	72	40	16	51	35	144	52	80	2.20	−.5	1.61	5	6.1	sw.	26	nw.	21	12	6	13	5.3	.0	.0	2
Austin [1]	605	10	41	995.9	1,017.3	-----	67.0	−1.3	89	8	78	38	23	56	37	62	56	77	3.00	−.2	1.56	8	7.8	s.	35	nw.	21	11	12	8	4.8	.0	.0	2
Brownsville [1]	57	5	54	1,013.2	1,015.2	-----	74.3	−.6	92	6	84	47	26	64	31	7	66	82	5.62	+2.0	3.79	7	9.1	se.	37	nw.	24	15	9	7	4.6	.0	.0	6
Corpus Christi [1]	20	4	33	1,015.6	1,016.3	+.4	71.8	+.7	89	8	82	40	25	62	34	24	64	84	3.48	------	1.29	8	9.3	se.	28	n.	24	16	4	11	4.5	.0	.0	3
Dallas [1]	512	5	45	999.3	1,017.6	-----	65.0	−2.3	85	31	76	36	25	54	38	75	54	75	2.80	+.1	1.77	5	9.1	s.	40	nw.	21	11	8	12	5.3	.0	.0	3
Fort Worth [1]	679	40	56	993.6	1,017.6	+.9	65.4	−.3	85	31	76	39	25	55	35	66	54	72	2.31	−.5	1.46	6	9.9	s.	43	nw.	21	10	10	11	5.4	.0	.0	1
Galveston [2]	54	106	114	1,015.2	1,017.3	+.4	70.6	−2.1	86	8	76	49	25	65	24	24	64	82	5.62	+1.3	2.39	9	9.3	s.	37	nw.	21	14	9	8	4.6	.0	.0	6
Houston [2]	138	157	190	1,011.9	1,017.3	-----	69.6	−.7	88	8	80	44	25	60	31	33	60	83	6.37	+2.6	2.86	8	9.4	ne.	34	nw.	21	13	6	12	5.2	.0	.0	2
Palestine	510	64	72	1,000.0	1,018.3	+1.4	65.4	−1.8	82	21	75	40	25	56	31	67	54	72	7.35	+4.0	2.85	6	6.2	s.	26	nw.	21	15	7	9	4.6	.0	.0	4
Port Arthur [2]	34	59	134	1,015.9	1,017.3	-----	69.2	−2.4	89	1	78	49	26	61	26	38	59	85	5.13	+1.8	2.61	11	11.1	ne.	42	s.	21	12	12	7	4.7	.0	.0	3
San Antonio [1]	693	8	51	992.6	1,016.9	+.6	68.4	−2.1	89	8	81	36	25	56	42	54	58	77	3.49	+1.3	1.74	7	8.1	ne.	41	nw.	21	12	9	10	5.3	.0	.0	2

See footnotes at end of table.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR OCTOBER 1945—Continued

District and station	Elevation of instruments: Barometer above sea level	Elevation of instruments: Thermometer above ground	Elevation of instruments: Anemometer above ground	Pressure: Station	Pressure: Sea level	Pressure: Departure from normal	Temperature of the air: Mean	Temperature of the air: Departure from normal	Temperature of the air: Maximum	Temperature of the air: Date	Temperature of the air: Mean maximum	Temperature of the air: Minimum	Temperature of the air: Date	Temperature of the air: Mean minimum	Temperature of the air: Greatest daily range	Total degree days	Mean temperature of the dew point	Mean relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: Days with 0.01 inch or more	Wind: Average hourly velocity	Wind: Prevailing direction	Wind: Maximum velocity: Miles per hour	Wind: Maximum velocity: Direction	Wind: Maximum velocity: Date	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms
OHIO VALLEY AND TENNESSEE	*Ft.*	*Ft.*	*Ft.*	*Mb.*	*Mb.*	*Mb.*	°F.	°F.	°F.		°F.	°F.		°F.	°F.		°F.	%	*In.*	*In.*	*In.*		*Mi.*								*0–10*	*In.*	*In.*	
							55.5	−1.0										77	2.08	−0.6											4.7			
Chattanooga [1]	762	6	66	991.2	1,019.0	.0	59.0	+1.3	81	20	72	34	27	46	43	197	48	82	3.91	+.9	2.16	4	5.6	s.	26	nw.	8	16	8	7	4.0	.0	.0	0
Knoxville [1]	995	27	53	983.1	1,019.3	+1.3	58.3	−.3	85	1	70	35	27	46	39	217	47	77	3.57	+1.0	1.82	5	5.8	ne.	25	w.	2	18	4	9	4.1	.0	.0	0
Memphis [4]	399	5	86	1,004.1	1,018.6	+.6	60.8	−.6	81	21	72	36	16	49	40	161	50	80	1.31	−1.4	.80	6	7.1	sw.	22	w.	21	13	10	8	4.8	.0	.0	0
Nashville [1]	546	5	72	999.0	1,019.0	+.4	58.7	−2.3	85	1	70	35	10	48	38	217	47	74	2.09	−.4	1.01	8	6.5	s.	26	sw.	21	11	10	10	5.2	.0	.0	1
Lexington	989	4	28	982.7	1,019.6	+1.0	56.2	−1.2	80	1	67	32	16	45	35	284	44	74	1.67	−.9	.79	7	----	----	----	----	----	16	7	8	3.9	.0	.0	1
Louisville [1]	525	106	120	999.0	1,018.3	−.3	56.4	−1.1	80	18	68	33	27	45	38	271	44	74	2.13	−.5	1.43	6	6.7	s.	26	nw.	19	15	7	9	4.5	.0	.0	1
Evansville [1]	431	11	40	1,002.7	1,018.6	.0	56.2	−.8	78	12	68	34	27	45	40	277	46	80	1.94	−.9	1.78	3	6.9	s.	22	nw.	19	15	6	10	5.0	.0	.0	2
Indianapolis [1]	823	5	54	987.8	1,018.0	−.3	52.2	−1.9	78	18	64	32	27	41	37	402	42	76	2.04	----	1.41	5	9.5	sw.	28	nw.	26	13	8	10	4.7	.0	.0	4
Terre Haute [2]	575	68	149	997.3	1,018.6	----	55.2	−2.0	78	28	66	33	10	45	33	307	43	79	2.00	−.7	1.06	4	8.9	sw.	25	nw.	8	13	10	8	4.6	.0	.0	3
Cincinnati [2]	627	11	51	995.3	1,018.6	.0	55.8	+.1	80	29	67	34	27	44	37	292	44	80	1.98	−.5	1.32	6	6.6	sw.	21	ne.	23	14	6	11	4.5	.0	.0	2
Columbus [2]	822	90	110	988.2	1,018.3	−.3	54.0	−1.2	77	18	64	33	27	44	31	347	42	78	2.11	−.4	1.02	9	9.3	s.	29	sw.	1	14	5	12	4.9	.0	.0	1
Dayton [1]	1,003	6	55	981.4	1,018.3	----	51.8	−2.0	74	18	62	31	27	42	30	408	42	74	1.37	−1.2	.63	7	11.0	s.	34	w.	2	12	8	11	5.4	.0	.0	2
Elkins [1]	1,947	4	45	948.9	1,019.3	.0	50.2	−.9	80	1	64	28	28	37	44	467	41	86	1.54	−1.4	.80	8	5.9	nw.	29	nw.	2	11	11	9	5.2	T	.0	0
Parkersburg	637	77	84	994.6	1,018.3	−.3	55.5	−.6	82	1	67	31	27	44	38	303	44	74	1.11	−1.4	.86	6	6.0	se.	22	nw.	2	16	7	8	4.2	.0	.0	0
Pittsburgh [1]	842	39	54	988.8	1,017.6	−1.0	52.6	−1.5	81	1	62	34	15	43	33	387	41	74	2.39	−.1	1.06	11	10.0	sw.	31	nw.	2	13	7	11	5.2	T	.0	1
LOWER LAKES							50.5	−0.6										78	4.53	+1.7										6.0			
Buffalo [1]	768	34	96	987.1	1,015.6	−2.0	49.8	+1.3	75	19	58	33	4	42	31	470	41	77	5.87	+2.6	3.49	17	14.8	sw.	43	w.	31	8	8	15	6.7	T	.0	3
Canton	448	10	61	996.6	1,013.2	----	46.7	−.8	78	19	56	26	4	37	37	566	38	79	3.94	+.9	1.25	16	9.0	w.	30	w.	31	8	7	16	6.6	T	.0	1
Oswego	335	71	85	1,001.7	1,014.6	−3.0	50.2	−.1	80	19	58	34	4	43	32	455	40	74	4.90	+.16	2.16	17	10.3	s.	26	nw.	2	8	7	16	6.5	T	.0	2
Rochester [1]	523	5	69	995.6	1,015.6	−2.0	50.0	+.5	81	19	59	31	28	41	33	467	40	80	4.59	+1.9	2.52	17	11.0	sw.	34	w.	26	6	10	15	6.6	.0	.0	3
Syracuse [1]	596	5	57	992.9	1,015.2	−2.8	49.9	+.4	80	19	60	31	4	40	42	467	42	80	6.52	+3.4	2.55	21	10.5	sw.	34	w.	2	4	10	17	6.8	T	.0	1
Erie [2]	714	57	81	990.2	1,016.6	−1.0	52.7	−.7	78	19	60	35	15	46	27	381	41	76	6.11	+2.4	2.25	20	8.4	s.	24	sw.	31	9	7	15	6.1	T	.0	2
Cleveland [1]	762	27	54	988.8	1,016.9	−1.1	51.8	−.9	76	29	61	33	4	42	31	407	42	76	4.20	+1.4	1.04	16	11.2	s.	30	sw.	2	9	8	14	5.8	T	.0	4
Sandusky	629	5	67	993.6	1,016.6	−1.4	53.2	−1.1	77	18	62	35	27	44	32	368	----	----	3.38	+.9	1.51	15	9.8	sw.	27	sw.	31	15	6	10	4.6	.0	.0	3
Toledo [1]	628	5	47	993.6	1,016.6	−1.0	50.4	−1.2	76	18	62	30	15	39	35	452	40	78	4.54	+2.2	.62	13	11.3	sw.	34	sw.	31	8	11	12	5.5	.0	.0	3
Fort Wayne [1]	857	5	33	985.4	1,017.3	----	50.0	−2.7	76	18	61	29	27	39	33	464	41	81	2.68	+.1	2.64	9	8.4	sw.	29	nw.	2	12	7	12	5.2	.0	.0	1
Detroit [1]	730	5	78	989.5	1,016.6	−1.0	51.0	−.9	76	18	60	32	15	42	27	433	40	75	3.14	+.8	1.71	14	10.2	sw.	33	nw.	2	8	10	13	5.7	.0	.0	0
UPPER LAKES							46.9	−1.0										77	1.91	−0.7										6.0			
Alpena	609	5	89	991.5	1,014.2	−2.7	46.4	−.7	80	18	54	29	30	39	32	579	38	80	3.51	+.8	.56	17	11.0	nw.	42	nw.	30	4	12	15	6.8	T	.0	4
Escanaba	612	51	72	991.5	1,014.6	−1.7	45.0	−1.0	64	4	53	28	3	37	32	625	36	73	2.12	−.5	.73	11	11.0	nw.	33	nw.	30	5	16	10	5.8	.1	.0	2
Grand Rapids [2]	707	70	244	989.8	1,015.9	−1.4	50.3	−.9	79	18	59	32	15	41	32	462	40	80	1.58	−1.2	1.27	8	12.1	sw.	52	sw.	30	11	10	10	5.2	T	.0	1
Lansing [2]	878	5	90	984.4	1,016.9	----	47.8	−2.5	74	18	58	30	15	38	32	531	38	76	2.56	+.1	1.17	13	8.4	sw.	28	sw.	30	9	8	14	5.6	.0	.0	1
Marquette	734	44	73	986.1	1,013.2	−3.1	45.2	−1.5	76	4	53	29	24	38	32	608	36	75	2.41	−.4	.73	15	9.3	w.	28	nw.	30	4	8	19	7.1	.8	.0	2
Sault Ste. Marie [1]	614	11	52	990.2	1,013.2	−3.1	43.4	+.4	70	17	51	29	3	36	33	669	36	74	3.30	+.2	.64	15	11.7	nw.	47	w.	30	2	4	25	7.9	.2	T	2
Chicago [1]	673	5	36	992.2	1,017.3	.0	51.4	−1.1	79	18	62	30	10	41	35	424	40	74	1.18	−1.4	.50	11	9.9	sw.	26	nw.	8	12	9	10	5.2	.0	.0	1
Green Bay	617	5	32	992.6	1,015.2	−1.4	46.8	−1.7	73	17	56	26	3	37	39	562	36	74	.99	−1.6	.34	6	8.2	s.	29	w.	30	5	16	10	6.3	T	.0	0
Milwaukee [1]	681	33	66	990.9	1,016.3	−.6	48.3	−.7	75	18	58	30	27	39	40	504	38	74	.78	−1.6	.85	7	13.0	sw.	37	sw.	30	8	15	8	5.4	.0	.0	0
Duluth [2]	1,133	5	47	972.2	1,014.2	−1.7	44.0	−.1	79	18	54	21	31	34	34	654	32	76	.71	−1.6	.46	6	11.9	nw.	38	nw.	19	14	9	8	4.7	T	.0	1
NORTH DAKOTA							45.3	+1.9										68	0.40	−0.8													
Fargo [1]	940	5	43	979.3	1,014.6	−1.3	44.6	+.1	82	17	57	13	31	32	42	630	33	71	.35	−1.3	.22	4	11.7	s.	40	nw.	25	10	9	12	5.4	T	.0	0
Bismarck [1]	1,677	5	43	954.3	1,015.2	−.4	46.4	+2.8	86	16	62	15	31	31	49	574	29	57	.07	−.9	.06	2	10.0	nw.	45	nw.	18	11	7	13	5.4	.0	.0	0
Devils Lake	1,478	11	44	960.0	1,014.6	−1.0	43.8	+1.4	83	16	56	16	31	41	40	662	30	65	.44	−.8	.23	2	8.2	nw.	29	nw.	50	12	9	10	5.3	T	.0	0
Grand Forks [1]	832	4	41	983.4	1,014.6	----	42.8	----	79	17	57	12	31	29	44	686	31	74	.31	----	.17	4	----	w.	----	----	----	10	7	14	----	T	.0	0
Williston	1,878	42	50	947.2	1,014.6	−.6	46.5	+3.1	82	16	60	17	29	33	42	573	31	60	.72	−.1	.54	4	7.2	w.	31	nw.	18	10	11	10	5.3	T	.0	0
UPPER MISSISSIPPI							52.3	−0.5										71	0.76	−1.7										5.1			
Minneapolis - St. Paul [1]	919	43	74	981.0	1,015.2	−1.1	48.6	−.3	82	18	59	24	31	38	37	506	36	68	.30	−1.8	.30	4	10.3	nw.	42	w.	30	13	9	9	4.7	.0	.0	3
Springfield, Minn.	1,025	4	42	978.0	1,015.9	----	50.0	----	84	17	63	22	31	37	41	473	34	64	.29	----	.31	3	----	sw.	----	----	----	12	11	8	----	.0	.0	1
La Crosse [1]	714	5	29	989.5	1,015.9	−.7	47.6	−1.5	76	18	59	25	31	36	41	537	37	75	.80	−2.0	.12	6	9.0	s.	34	nw.	30	11	12	8	5.1	.0	.0	2
Madison [2]	974	70	78	980.7	1,016.9	−.3	49.0	−1.3	74	17	58	31	31	40	34	496	38	74	.39	−2.0	.30	5	8.3	sw.	23	sw.	30	11	12	8	5.1	.0	.0	0
Charles City	1,015	10	51	980.0	1,017.3	+.7	49.5	+.9	78	18	61	26	31	38	38	481	----	----	.34	−2.0	.43	7	6.1	nw.	19	nw.	18	13	9	9	4.6	.0	.0	1
Moline [1]	606	6	50	995.3	1,017.6	+.3	51.0	−1.0	80	17	62	27	15	40	41	437	40	71	1.09	−1.3	.64	7	8.6	sw.	29	sw.	7	8	12	11	5.7	.0	.0	1
Des Moines [2]	860	5	99	986.1	1,017.6	+.7	53.8	+.4	81	18	64	30	9	43	39	350	38	66	.31	−2.2	.15	4	8.5	sw.	29	nw.	28	10	12	9	5.4	.0	.0	0
Dubuque	699	60	79	991.2	1,016.6	−.7	51.1	−.8	77	17	61	31	15	41	37	435	38	67	.11	−2.4	.25	5	5.2	nw.	17	nw.	8	11	13	7	5.0	.0	.0	2
Burlington [1]	702	4	36	991.9	1,018.0	+.4	52.0	−.1	878	17	64	27	9	40	36	401	42	77	.56	−2.1	.48	5	9.8	sw.	29	sw.	7	9	11	11	5.3	.0	.0	2
Cairo	357	5	99	1,005.8	1,018.6	+.3	59.3	−1.2	79	12	68	40	9	50	29	190	----	----	1.97	−.8	1.19	7	7.5	sw.	26	sw.	30	11	10	10	5.1	.0	.0	2
Peoria [1]	609	6	26	995.6	1,018.0	+.4	51.5	+.5	78	17	63	30	26	40	38	418	41	76	.74	−1.6	.56	5	8.8	sw.	25	sw.	30	11	10	10	4.9	.0	.0	2
Springfield, Ill. [2]	636	5	191	994.6	1,018.3	+1.7	55.8	.0	79	17	66	34	9	45	33	282	42	78	1.95	−.6	1.57	7	11.2	s.	26	nw.	8	15	7	9	4.6	.0	.0	4
St. Louis [2]	568	6	303	997.6	1,018.3	+.0	58.4	−.4	81	27	68	39	9	49	----	223	----	68	1.08	−1.6	.83	5	10.7	sw.	29	s.	30	12	12	7	----	.0	.0	1
MISSOURI VALLEY							53.0	+1.1										68	0.72	−1.5										4.6			
Columbia, Mo. [3]	784	6	66	989.5	1,018.0	+.4	56.4	−.5	81	18	68	34	26	45	36	280	44	72	1.60	−1.0	.63	8	6.3	s.	24	nw.	19	14	10	7	4.5	.0	.0	1
Kansas City [1]	963	39	76	982.4	1,017.6	+.3	57.2	−.5	83	18	68	32	9	47	35	253	44	69	.92	−1.8	.43	7	9.7	sw.	33	nw.	21	16	7	8	4.4	.0	.0	3
St. Joseph [2]	967	11	49	982.1	1,017.6	----	56.0	.0	84	18	67	30	9	45	35	289	44	75	.67	−2.2	.10	6	7.3	s.	25	n.	21	20	5	6	3.7	.0	.0	3
Springfield, Mo. [1]	1,324	5	67	970.9	1,018.3	+.7	56.7	−.9	81	18	68	34	9	46	34	267	48	81	3.07	.0	2.39	5	10.4	s.	36	n.	21	14	4	13	5.3	.0	.0	1
Topeka	987	65	87	981.7	1,018.0	+.4	57.6	+.6	88	18	69	32	9	46	35	244	45	70	.46	−2.0	.14	6	8.5	s.	26	n.	21	16	7	8	4.8	.0	.0	3
Lincoln [2]	1,189	11	81	973.9	1,017.3	+.4	56.0	+1.8	87	18	67	27	22	45	36	287	38	60	.07	−1.8	.07	1	8.9	s.	27	nw.	18	14	7	10	4.8	.0	.0	0
Omaha [1]	1,105	5	68	976.6	1,017.3	+.4	55.1	+1.7	86	18	67	27	22	43	36	315	40	68	.02	−2.2	.02	1	10.1	s.	35	nw.	18	14	9	8	4.5	.0	.0	1
Valentine	2,598	46	54	924.1	1,016.3	.0	52.6	+3.3	87	15	69	21	24	36	49	386	32	53	T	−1.1	T	0	8.4	w.	27	nw.	18	15	9	7	4.3	.0	.0	1
Sioux City [1]	1,138	5	40	----	1,016.6	.0	52.5	+2.8	87	18	67	24	22	38	----	392	38	66	.01	−1.8	.01	1	9.6	s.	34	w.	18	10	13	8	----	.0	.0	1
Huron [1]	1,301	5	41	967.8	1,015.6	−.7	50.0	+2.3	86	3	66	19	22	34	48	462	34	63	.33	−1.0	.36	3	11.1	s.	44	n.	18	9	14	8	5.2	.0	.0	1
NORTHERN SLOPE							50.2	+4.9										59	0.62	−0.3										5.0			
Billings [1]	3,570	16	40	891.6	1,014.9	----	51.9	+3.9	81	3	65	27	21	39	42	407	36	56	.50	----	.25	5	10.6	sw.	40	nw.	17	13	8	10	5.1	1.5	.0	0
Havre	2,507	11	67	925.8	1,014.9	−.3	48.9	+4.4	81	2	63	25	29	35	46	498	33	61	1.28	+.6	1.15	5	7.9	sw.	26	sw.	31	10	10	11	5.5	T	.0	0
Helena [1]	4,124	5	43	874.4	1,016.9	.0	49.2	+5.4	80	3	64	21	21	34	44	486	32	57	.23	−.4	.12	3	8.2	w.	45	w.	30	10	9	12	5.6	T	.0	0
Missoula	3,263	4	32	903.8	1,018.6	----	48.8	+5.5	77	2	63	23	21	35	42	505	36	66	.48	−.5	.23	8	5.1	w.	31	nw.	17	10	6	15	5.7	T	.0	0
Kalispell	2,973	48	56	913.0	1,016.6	+.3	46.8	+3.3	75	3	58	23	21	36	39	560	37	72	1.77	+.7	.86	7	5.2	w.	20	sw.	17	11	5	15	5.7	1.7	.0	0
Miles City [1]	2,371	5	78	931.3	1,015.6	−.3	50.4	----	84	3	65	26	8	36	42	452	33	61	.46	----	.24	5	----	w.	----	----	----	14	8	9	4.6	T	.0	0
Rapid City [1]	3,259	5	63	902.1	1,016.3	.0	51.6	+4.0	85	3	66	24	24	37	45	416	32	50	.20	−.7	.15	3	13.2	nw.	50	nw.	18	20	3	8	3.9	T	.0	0
Cheyenne [1]	6,094	5	40	814.8	1,015.9	−.4	49.3	+4.5	76	3	64	14	23	34	42	489	30	51	.53	−.4	.39	4	10.5	nw.	42	w.	31	15	7	9	4.4	4.6	.0	0
Lander	5,352	60	68	836.4	1,015.9	−1.4	49.6	+6.1	78	5	66	19	21	33	43	482	32	55	.41	−1.0	.21	7	4.1	sw.	39	sw.	18	15	7	9	4.4	3.1	.0	0
Sheridan [1]	3,790	5	38	884.9	1,016.6	----	51.0	+6.4	82	3	66	25	19	36	44	437	32	58	.69	−.4	.36	5	7.0	nw.	45	nw.	17	13	8	10	4.9	2.4	.0	0
North Platte [1]	2,821	11	51	917.4	1,016.3	−.3	54.8	+5.1	86	16	71	24	24	39	47	316	36	64	.03	−1.0	.02	2	6.6	n.	23	n.	18	13	11	7	4.7	T	.0	0

See footnotes at end of table.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR OCTOBER 1945—Continued

District and station	Elevation of instruments: Barometer above sea level	Elevation of instruments: Thermometer above ground	Elevation of instruments: Anemometer above ground	Pressure: Station	Pressure: Sea level	Pressure: Departure from normal	Temperature of the air: Mean	Temperature of the air: Departure from normal	Temperature of the air: Maximum	Temperature of the air: Date	Temperature of the air: Mean maximum	Temperature of the air: Minimum	Temperature of the air: Date	Temperature of the air: Mean minimum	Temperature of the air: Greatest daily range	Total degree days	Mean temperature of the dew point	Mean relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: Days with 0.01 inch or more	Wind: Average hourly velocity	Wind: Prevailing direction	Wind: Maximum velocity: Miles per hour	Wind: Maximum velocity: Direction	Wind: Maximum velocity: Date	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms
MIDDLE SLOPE	*Ft.*	*Ft.*	*Ft.*	*Mb.*	*Mb.*	*Mb.*	°*F.*	°*F.*	°*F.*		°*F.*	°*F.*		°*F.*	°*F.*		°*F.*	%	*In.*	*In.*	*In.*		*Mi.*								*0–10*	*In.*	*In.*	
							57.8	+1.2										66	0.70	−1.3											5.0			
Denver [1]	5,292	106	113	839.5	1,015.9	−.4	54.9	+3.7	80	5	68	26	23	42	40	315	32	51	.63	−.4	.43	5	7.1	s.	26	nw.	20	13	13	5	4.4	2.9	.0	0
Pueblo [1]	4,690	5	36	858.5	1,016.9	+.3	54.8	+3.6	86	7	73	20	24	37	49	315	32	56	1.30	+.6	.97	3	7.2	nw.	33	sw.	31	14	10	7	4.3	T	.0	1
Concordia	1,392	50	58	967.2	1,017.6	+.7	57.0	+1.1	88	18	69	29	22	45	39	264	42	65	.29	−1.7	.16	3	7.4	s.	22	nw.	18	16	8	7	4.5	.0	.0	0
Dodge City [1]	2,509	5	58	928.5	1,016.3	−.3	57.2	+1.1	86	7	70	28	22	44	44	254	42	66	1.17	−.1	.94	4	14.2	s.	45	ne.	18	10	13	8	4.9	T	.0	1
Wichita [1]	1,358	6	64	968.5	1,017.3	+.4	58.0	−.6	80	12	68	33	22	48	32	227	48	75	.51	−2.1	.25	7	12.4	s.	44	n.	21	12	8	11	5.2	.0	.0	0
Oklahoma City [2]	1,214	10	47	973.9	1,017.3	+.4	62.0	+.5	83	18	72	35	22	52	36	130	50	74	.37	−2.5	.25	6	8.0	s.	28	nw.	21	6	12	13	6.0	.0	.0	0
Tulsa [1]	674	10	60	992.9	1,017.3	-----	60.6	−1.0	83	18	72	36	25	50	39	159	51	78	.65	−2.7	.33	6	9.6	s.	42	n.	21	9	10	12	5.5	.6	.0	1
SOUTHERN SLOPE																															4.9			
							62.8	+0.4										70	2.72	+0.8											4.9			
Abilene [1]	1,738	4	59	956.0	1,016.6	+.3	63.9	−.4	89	31	75	36	22	53	42	90	52	76	4.12	+1.6	1.44	7	11.6	s.	42	nw.	21	13	8	10	4.8	.0	.0	0
Amarillo [1]	3,676	5	42	891.3	1,016.9	+1.4	58.6	+2.8	85	31	72	30	22	46	40	207	44	70	1.31	−.4	.96	6	12.8	sw.	43	n.	21	12	10	9	4.7	T	.0	2
Del Rio	960	63	71	982.7	1,015.6	+.4	68.8	−1.2	88	21	79	40	25	59	36	35	56	72	4.06	+2.2	3.17	8	8.3	se.	28	n.	21	14	8	9	4.8	.0	.0	1
Roswell	3,566	75	85	895.4	1,016.6	+2.0	59.8	+.3	89	31	73	30	24	47	43	179	44	64	1.39	.0	.80	4	6.8	s.	34	ne.	21	10	11	10	5.3	.0	.0	0
SOUTHERN PLATEAU																															4.2			
							66.2	+3.1										52	1.31	+0.6											4.2			
El Paso [1]	3,778	39	85	888.3	1,014.6	+1.4	63.8	+1.8	83	7	76	36	25	51	39	84	48	62	4.31	+3.5	1.77	7	7.5	se.	29	nw.	23	13	9	9	5.1	.0	.0	1
Albuquerque [1]	5,314	5	45	840.2	1,014.6	-----	58.6	+2.0	80	5	72	29	24	45	36	206	36	48	.43	−.4	.38	6	8.9	se.	35	nw.	21	15	11	5	4.0	.0	.0	2
Flagstaff	6,907	36	51	793.4	1,018.0	+4.8	50.7	+3.8	73	3	66	23	25	36	48	440	34	58	.76	−.7	.34	9	----	nw.	----	-----	--	14	11	6	4.3	.0	.0	3
Phoenix [2]	1,107	39	87	-----	1,011.9	.0	75.0	+4.4	96	4	88	46	25	61	---	2	50	50	.69	+.2	.54	3	5.9	e.	20	se.	5	15	10	6	----	.0	.0	1
Tucson [1]	2,555	5	39	925.5	1,012.2	-----	71.6	+2.9	94	7	85	42	25	58	40	7	46	47	1.13	+.6	.84	4	----	se.	----	-----	--	15	9	7	4.3	.0	.0	2
Yuma	142	9	54	1,006.4	1,010.8	−.7	77.2	+3.9	103	2	91	52	25	64	39	0	50	47	.54	+.3	.54	2	4.9	n.	22	n.	23	17	12	2	3.2	.0	.0	2
MIDDLE PLATEAU																															4.7			
							53.7	+3.6										53	1.23	+0.6											4.7			
Reno [1]	4,527	20	52	863.5	1,016.3	+.7	53.6	+5.1	85	2	71	18	24	36	59	353	36	60	2.14	+1.8	1.27	7	6.4	sw.	34	sw.	27	13	8	10	4.7	.0	.0	5
Tonopah	6,060	9	20	815.8	1,015.2	-----	52.9	+.8	75	3	62	30	23	44	38	373	36	54	1.71	+1.4	.69	11	----	se.	----	-----	--	12	9	10	----	.0	.0	5
Winnemucca	4,339	5	56	869.6	1,016.9	−.7	52.8	+4.5	85	2	69	18	24	37	51	380	32	50	.77	+.2	.42	7	7.0	ne.	21	sw.	30	13	8	10	4.9	.0	.0	3
Modena	5,473	10	46	835.8	1,015.9	+1.3	51.7	+3.7	79	3	67	20	24	36	48	410	----	---	1.49	+.8	.93	9	8.1	w.	28	s.	30	11	12	8	4.5	.0	.0	6
Salt Lake City [1]	4,227	32	58	869.6	1,016.9	+.6	55.1	+4.3	80	3	69	25	23	42	37	307	35	53	.58	−.7	.27	7	9.5	se.	42	nw.	30	13	6	12	4.9	T	.0	3
Grand Junction	4,602	60	68	862.2	1,016.6	+1.0	56.2	+3.4	84	7	69	27	25	44	33	279	36	50	.71	−.2	.27	8	5.4	se.	32	nw.	20	14	9	8	4.3	.0	.0	5
NORTHERN PLATEAU																															4.8			
							53.5	+4.3										59	0.59	−0.6											4.8			
Baker [2]	3,471	36	54	897.7	1,018.6	.0	50.5	+3.9	83	14	66	20	21	35	47	449	31	61	.35	−.6	.16	.8	5.9	s.	29	sw.	27	14	7	10	4.6	T	.0	0
Boise [1]	2,739	5	49	921.4	1,016.9	−1.1	55.2	+5.1	85	2	69	20	23	41	39	309	34	48	.62	−.6	.52	6	9.4	se.	27	se.	21	15	7	9	4.3	T	.0	3
Pocatello [1]	4,478	5	31	865.6	1,018.6	+1.3	52.0	+5.5	82	3	68	24	19	36	48	397	32	54	.69	−1.0	.40	5	8.4	sw.	40	s.	30	12	12	7	4.5	.2	.0	1
Spokane [1]	1,929	27	42	948.2	1,017.3	−.7	50.8	+2.5	79	2	63	24	23	39	37	440	40	72	.79	−.4	.28	8	6.0	ne.	25	sw.	17	12	7	12	5.4	T	.0	0
Walla Walla	991	57	65	981.4	1,017.3	−1.0	57.2	+3.7	82	9	68	31	21	47	31	252	-----	---	.61	−.9	.34	5	4.6	sw.	20	sw.	24	15	6	10	4.7	.0	.0	0
Yakima	1,076	58	67	978.0	1,016.9	-----	55.2	+5.0	83	8	68	24	28	42	37	315	-----	---	.50	−.1	.40	3	5.0	nw.	27	sw.	24	15	3	13	5.0	.0	.0	0
NORTH PACIFIC COAST																															6.3			
							54.1	+1.4										80	2.75	−1.0											6.3			
North Head	211	5	55	1,010.5	1,018.0	+.4	52.0	−.9	81	1	57	40	23	47	29	405	48	88	2.35	−2.7	.60	16	11.1	s.	41	w.	21	7	5	19	6.9	.0	.0	0
Seattle [2]	125	90	321	1,013.5	1,018.0	+.4	54.8	+1.1	77	8	61	38	23	48	24	314	48	82	2.23	−.6	.70	15	8.5	s.	45	sw.	24	9	7	15	6.3	.0	.0	1
Tacoma	194	172	201	1,011.2	1,017.6	+.3	52.8	+2.3	73	1	60	35	18	46	28	377	----	---	2.71	−.6	.70	13	6.8	n.	36	sw.	21	6	10	15	6.3	.0	.0	0
Tatoosh Island	86	9	61	1,014.6	1,017.3	+1.0	50.2	+.3	64	8	55	42	18	46	18	461	46	88	7.35	−.8	1.32	16	14.3	e.	66	nw.	21	6	9	16	6.8	.0	.0	0
Medford [1]	1,329	29	58	969.9	1,016.6	-----	56.6	+3.0	93	1	72	27	25	42	54	272	42	66	1.26	−.2	.58	9	----	s.	----	-----	--	10	6	15	5.7	.0	.0	1
Portland, Oreg. [2]	154	68	106	1,012.9	1,018.0	.0	56.0	+1.8	85	1	64	38	18	48	31	288	48	80	1.73	−1.4	.43	11	5.5	nw.	16	nw.	4	7	8	16	6.5	.0	.0	0
Roseburg	510	45	76	999.3	1,017.6	−1.0	56.0	+2.1	94	1	68	33	18	44	49	287	48	76	1.63	−1.0	.41	9	3.1	nw.	18	n.	4	10	10	11	5.5	.0	.0	0
MIDDLE PACIFIC COAST																															5.5			
							62.3	+2.0										68	2.89	+1.4											5.5			
Eureka	60	72	88	1,015.2	1,017.3	−.7	53.4	−.2	72	5	58	41	23	48	25	362	49	88	3.38	+1.0	.99	12	6.1	n.	30	n.	4	5	4	22	7.7	.0	.0	1
Red Bluff [1]	353	5	26	1,001.7	1,013.9	-----	68.4	+4.1	98	2	80	39	25	56	43	54	42	47	3.71	+2.4	2.29	7	8.6	nw.	33	se.	30	13	8	10	4.8	.0	.0	2
Sacramento	66	92	115	1,012.2	1,014.2	−1.4	65.7	+2.8	94	2	78	45	26	54	38	42	48	60	2.53	+1.6	1.12	6	6.9	s.	27	nw.	22	15	9	7	4.0	.0	.0	0
San Francisco [2]	155	112	132	1,009.8	1,014.9	−1.4	61.6	+1.1	83	2	68	53	19	56	29	121	51	77	1.95	+.8	1.02	5	7.8	w.	30	sw.	30	9	11	11	5.5	0	.0	0
SOUTH PACIFIC COAST																															5.0			
							67.1	+3.2										65	0.53	0.0											5.0			
Fresno [1]	327	5	34	1,002.4	1,013.9	−.7	66.7	+4.4	96	3	80	40	23	53	43	38	50	60	1.04	+.5	.50	8	4.6	nw.	22	nw.	10	13	11	7	4.4	.0	.0	5
Los Angeles	338	223	250	1,003.1	1,014.6	+.4	67.2	+1.9	97	2	76	52	28	59	32	27	51	66	.56	−.1	.37	3	6.0	w.	20	se.	29	10	12	9	5.2	.0	.0	6
San Diego [1]	87	20	55	1,011.5	1,014.2	.0	67.4	+3.3	94	2	74	51	26	60	32	12	54	70	T	−.5	T	0	6.0	nw.	18	e.	29	9	11	11	5.5	.0	.0	0
ALASKA																																		
Anchorage [1]	132	6	44	995.3	1,000.3	-----	34.8	−1.2	55	8	42	5	27	27	28	940	29	76	2.32	+.1	.58	14	8.0	n.	38	se.	21	3	5	23	7.7	10.6	T	0
Fairbanks [1]	455	5	63	984.4	1,001.7	-----	26.2	−.6	55	3	35	−9	31	18	33	1,206	24	84	1.40	+.6	.25	19	6.9	e.	27	sw.	30	1	6	24	8.3	17.3	7.3	0
Juneau [1]	80	6	30	1,005.8	1,008.8	-----	46.7	-----	56	1	47	16	29	38	17	704	38	83	11.05	-----	3.02	26	10.9	se.	38	se.	11	1	1	29	8.8	.2	.0	0
Nome	22	25	56	999.0	999.7	-----	27.9	−1.5	48	1	34	7	25	21	22	1,140	25	82	2.55	+1.0	1.05	16	11.7	ne.	57	sw.	29	5	9	17	6.8	19.8	6.6	0
Gambell	32	5	32	1,000.0	1,001.4	-----	27.9	−3.3	39	11	31	11	31	24	13	1,150	25	86	1.80	+.2	-----	15	21.0	n.	56	n.	18	1	5	25	8.5	15.1	8.4	0
Ketchikan	75	69	90	1,011.5	1,012.2	-----	46.6	−.1	61	1	51	28	29	42	13	568	42	85	24.90	+4.8	6.33	29	7.5	se.	34	se.	22	1	1	29	8.8	T	.0	0
Kotzebue	20	5	31	999.0	999.7	-----	24.8	+.1	45	3	30	2	24	20	19	1,246	23	86	.52	.0	-----	16	14.7	se.	52	e.	28	4	6	21	7.7	4.8	3.1	0
McGrath	341	5	31	-----	1,001.7	-----	25.2	−2.7	52	3	33	−8	26	17	35	1,235	23	84	3.16	+1.2	1.54	19	----	n.	---	-----	---	2	8	21	8.1	24.7	11.8	0
HAWAII																																		
Honolulu	38	86	100	-----	1,014.9	-----	77.8	+1.0	85	7	83	69	13	73	---	0			.61	−.9	.20	10	9.1	ne.	27	ne.	26	9	17	5	----	.0	.0	0

[1] Data are airport records.
[2] Barometric data (adjusted to old city elevation) and hygrometric data from airport; otherwise city office records.
[3] Observations taken hihourly.
[4] Pressure (adjusted to old city elevation), temperature, and hygrometric data from airport; otherwise city office records.
[5] Temperature and precipitation from city records, other data from airport.

NOTE.—Except as indicated by notes [1], [2], [3], [4], and [5] data in table are city office records

SEVERE LOCAL STORMS FOR OCTOBER 1945

[The table herewith contains such data as has been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the UNITED STATES METEOROLOGICAL YEARBOOK]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
	October 1945						
New York State	1-2				$1,000,000	Heavy rain and flood.	Heavy rainfall over the headwaters of the Mohawk River and its tributaries produced serious floods in the upper Mohawk River. The amount given is a preliminary estimate of the loss due to flooding.
East side of southern Sierra, Calif.	5-8				200,000	Heavy rain	Severe damage to highways and public utilities in Owens Valley and southward to Mojave. Traffic disrupted and several persons killed in traffic accidents or drowned by rushing water. Loss to highways estimated at $100,000 to $150,000 with total loss estimated to exceed $200,000, including damage to buildings and utilities—among them the Los Angeles aqueduct, portions of which were carried away. Unusually heavy rain fell also at some stations in the San Joaquin Valley.
Tehachapi, Calif., vicinity of.	6					do	Rain of cloudburst proportions covered several hundred acres of farming land with rocks and damaged many fields by washouts and erosion. Loss in potatoes, wheat, and corn.
Alpena, Mich., vicinity of	18				5,000	Electrical	Barn burned.
Tallahassee, Fla., 5 miles south.	22	6:45 p. m.	33-200	1	50,000	Tornado	24 families homeless when 13 houses and a store were destroyed or damaged. The storm cut a swath from the lower southwest end of Leon County to Miccosukee on the east. Path approximately 10 miles long.
California, northwestern portion.	28-31			11	50,000	Heavy rain and wind.	More than 5 inches of rain fell at many places and 10 inches or more at several stations. The heaviest rainfall was reported at Vollmer's in Shasta County, where 14.08 inches recorded. High southerly winds accompanied the rain along the coast north of Point Arguello. At least a dozen fishing boats and other craft driven ashore, with damage to the fishing fleet estimated to be in excess of $50,000; in addition to 11 Navy men who lost their lives in San Francisco Bay, when a whaleboat capsized while they were returning to their ship; several persons killed in traffic accidents. Trees and signs blown down, and there was minor damage to buildings, and telephone and electric lines. Rain interrupted harvesting and caused some loss in grapes, tomatoes, and beans.

LATE REPORTS FOR KANSAS, MAY 1945

[Reports not included in REVIEW of that month]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
	May 1945						
Spearville, Kans., vicinity of.	5	8 p. m., C. W. T.	[1]3	------	$200,000	Heavy hail	Loss in wheat; path 12 miles long.
Spearville, Kans., and vicinities.	6	10 p. m., C. W. T.	[1]4	------	10,000	Hail	Loss in wheat spotted; path 18 miles long.
Jewell, Kans.	6	11 p. m.-midnight, C. W. T.	110	0	6,000	Small tornado	Chief damage to buildings from high winds along a path extending a quarter of a mile north of Jewell; path 32 miles long.
Grant County, Kans., east-central portion.	12	3 p. m., M. W. T.	[1]6	------	150,000	Hail	Total loss of wheat on 8,000 acres; path 10 miles long.
Lane to Gove County, Kans.	12	3:45-4:30 p. m., C. W. T.	[1]3	------	100,000	------do	Loss in wheat with 25 to 50 percent of stalks broken; path 40 miles long.
Smith County, Kans.	12	P. m.	[1]4	------	250,000	Heavy hail	Loss to crops in strip across the center of the county; buildings and cars damaged; path 30 miles long.
Mankato, Kans., vicinity of.	13	7 p. m., C. W. T.	[1]10	------	200,000	Heavy hail and wind.	Chief loss in crops from hail; property damaged by wind.
Cloud County, Kans., northern portion.	13	9:30 p. m., C. W. T.	[1]6	------	100,000	Heavy hail	Loss in wheat; property damaged; path 15 miles long.
Larned, Kans., 8 miles northwest.	20	3 p. m., C. W. T.	--------	------	5,000	------do	Property damaged; loss in livestock and wheat; path 1 mile long.
Barton County, Kans., western and north-central portions.	20	4-7 p. m., C. W. T.	[1]3	------	100,000	------do	Loss in growing crops; path 15 miles long.
Hamilton County, Kans., northern portion.	20	6 p. m., C. W. T.	[1]1	------	18,000	Hail	No details; path 5 miles long.
Selden to Allison, Kans., and vicinity.	20	6 p. m., M. W. T.	[1]6	------	60,000	Heavy hail	This was one of the most destructive hailstorms of recent years in this area, with losses from 20 to 100 percent; path 15 miles long.
Ashland, Kans., vicinity of.	20	6:45-7:30 p. m., C. W. T.	2,640	------	25,000	------do	Property damaged; path 15 miles long.
Kiowa County, Kans.	20	7-9 p. m., C. W. T.	[1]6	------	60,000	------do	Heaviest damage occurred to wheat fields in the northeastern and southwestern section of the county; path 12 miles long.
Pratt County, Kans., western portion.	20	7:30-8 p. m., C. W. T.	[1]3	------	$200,000	Heavy hail and wind.	Chief loss to newly headed wheat in the western portion of the county between Cullison and Wellsford. Losses generally ranged from 60 to 80 percent. Power and communication lines damaged by wind.
Sylvia, Kans., and vicinity.	20	8 p. m., C. W. T.	[1]3	------	2,000	Wind	Property damaged; path 7 miles long.
Ellsworth, Kans., vicinity of.	20	8:30 p. m., C. W. T.	440	0	40,000	Small tornado	Much crop loss.
Ford County, Kans.	20	----------	[1]4	------	10,000	Hail	Losses heaviest near the Arkansas River; path 20 miles long.
Lincoln, Kans.	21	1 a. m., C. W. T.	[1]5	------	40,000	Wind and heavy hail.	Loss in crops; path 16 miles long.
Lyon County, Kans.	24	9-10 p. m., C. W. T.	[1]7	------	25,000	Wind and hail	Storm centered west of Emporia and extended northeastward in the vicinity of Americus; buildings and trees damaged; path 12 miles long.
Vermillion, Kans., 6 miles southwest to 3 miles south.	26	4 p. m., C. W. T.	880	0	10,000	Small tornado	Chief damage to farm homes; path 5 miles long.
Westfall to Beverly, Kans.	26	11 p. m.	[1]3½	------	100,000	Heavy hail	This storm very destructive, with some hailstones almost size of baseballs; damage severe to buildings and livestock, with crop loss heavy to 100 percent; path 12 miles long.
Olpe to Hartford, Kans.	29	6 a. m., C. W. T.	[1]8	------	12,500	Hail	Path 18 miles long; no details.
Elkhart, Kans., and vicinity.	29	7 p. m., M. W. T.	[1]3	------	100,000	Heavy hail	Roofs and windows damaged; loss in crops; path 10 miles long.
Stevens County, Kans.	29	9 p. m., M. W. T.	[1]5	------	40,000	------do	Heavy loss in row crops from washing; loss in wheat from hail; path 25 miles long.
Cheyenne County, Kans.	30	7 p. m., M. W. T.	[1]10	------	200,000	Wind and heavy hail.	Much crop loss; path 35 miles long.
Sherman County, Kans.	30	7:30 p. m., M. W. T.	[1]12	------	1,000,000	Hail	Much damage over a path 30 miles long.
Thomas County, Kans.	30	8-10 p. m., M. W. T.	[1]3	------	500,000	Heavy hail	Heavy damage over a path 40 miles long; no details.
Sheridan County, Kans.	30	9:30 p. m., M. W. T.	[1]17	------	100,000	------do	Loss in crops; path 35 miles long.
Mingo to Halford, Kans., and vicinities.	30	10 p. m., M. W. T.	110	0	35,000	Small tornado	The cloud did not reach the ground, but was close enough to unroof granaries in its path; large roof carried 150 feet; path 18 miles long.
Dellvale to Norton, Kans., and vicinities.	30	10 p. m., M. W. T.	880	0	12,000	Tornado	Path, over sparsely settled country, 9 miles long; loss in crops, $2,000, included in estimate.

[1] Miles instead of yards.

SOLAR RADIATION AND SUNSPOT DATA FOR OCTOBER 1945

[Solar Radiation Investigation Section, I. F. HAND, in charge]

SOLAR RADIATION OBSERVATIONS

Explanations of the tables and references to descriptions of instruments, stations, and methods of observation, and to summaries of data, are given in the January 1944 MONTHLY WEATHER REVIEW, page 43. A list of the pyrheliometric stations also is given on page 45 of the same REVIEW.

TABLE 1.—*Solar radiation intensities during October 1945*

[GRAM CALORIES PER MINUTE PER SQUARE CENTIMETER OF NORMAL SURFACE]

Date	Sun's zenith distance: 7:30 a.m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	1:30 p.m.
	Air mass: 75th mer. time	A. M.				*1.0	P. M.				75th mer. time
	e.	5.0	4.0	3.0	2.0		2.0	3.0	4.0	5.0	e.
MADISON, WIS.											
	mb.	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*mb.*
Oct. 3	5.1	------	0.77	1.06	1.22	1.49	------	------	------	------	5.6
Oct. 4	8.1	------	.79	.95	1.16	1.41	------	------	------	------	11.4
Oct. 8	5.8	------	.76	1.10	1.19	1.29	------	------	------	------	6.9
Oct. 11	6.9	0.58	.66	.77	.99	1.27	------	------	------	------	9.8
Oct. 12	7.2	.52	.62	.95	1.26	1.47	------	------	------	------	6.4
Oct. 13	5.3	.92	.96	1.14	------	1.42	------	------	------	------	6.9
Oct. 15	4.6	------	------	------	1.11	------	------	------	------	------	6.4
Oct. 16	8.1	------	.74	.79	1.07	1.52	------	------	------	------	12.3
Oct. 17	10.6	.44	.69	.81	.99	1.40	------	------	------	------	17.0
Oct. 19	7.8	.83	.94	1.04	1.24	1.54	------	------	------	------	7.2
Oct. 20	5.8	------	.94	1.04	1.19	1.36	------	------	------	------	7.8
Oct. 22	5.6	.45	.70	.84	1.25	------	------	------	------	------	5.3
Oct. 26	4.6	.80	1.02	1.14	1.21	1.28	------	------	------	------	4.8
Oct. 27	4.8	------	.63	------	------	------	------	------	------	------	7.2
Oct. 30	6.6	------	.49	.60	------	------	------	------	------	------	11.7
Oct. 31	4.2	------	1.03	1.16	1.34	1.55	------	------	------	------	4.2
Means	------	.65	.78	.96	1.17	1.42	------	------	------	------	------
Departures	------	−.09	−.10	−.07	−.02	−.01	------	------	------	------	------
LINCOLN, NEBR.											
Oct. 2	8.4	0.92	1.01	1.11	1.27	1.48	1.28	1.10	0.97	0.86	10.2
Oct. 3	9.4	.83	.94	1.07	1.22	1.46	1.21	1.03	.90	.82	12.7
Oct. 6	9.1	.66	.75	.88	1.09	1.38	------	------	------	------	8.1
Oct. 8	6.9	------	------	1.20	1.31	1.52	1.31	1.18	1.05	.94	5.1
Oct. 9	4.2	.70	.79	.96	------	------	------	.96	.83	.68	5.1
Oct. 10	7.4	------	------	------	------	1.47	1.23	1.03	.88	.73	9.8
Oct. 11	8.1	.81	.94	1.10	1.27	1.46	1.28	------	------	------	9.4
Oct. 16	9.8	.75	.83	.94	1.14	1.38	1.17	1.06	.75	.58	12.7
Oct. 17	13.2	.70	.81	.96	1.19	1.38	1.12	.88	.73	.62	16.4
Oct. 18	10.6	.77	.90	1.05	1.23	1.45	------	------	------	------	12.7
Oct. 19	4.6	1.03	1.11	1.22	1.36	1.51	1.31	1.16	1.03	.92	4.8
Oct. 20	4.8	.88	.94	1.03	------	------	------	------	------	------	5.8
Oct. 25	6.1	------	------	------	1.27	------	------	------	------	------	6.1
Oct. 26	4.2	.77	.90	1.05	1.27	1.46	1.23	------	------	------	6.4
Oct. 29	6.1	.62	.75	.90	1.11	------	------	------	------	------	4.6
Means	------	.79	.89	1.04	1.23	1.45	1.24	1.05	.89	.77	------
Departures	------	−.01	−.03	−.03	−.04	−.03	.00	−.01	−.04	−.05	------
ALBUQUERQUE, N. MEX.											
Oct. 1	6.0	0.96	1.06	1.18	1.31	1.56	1.31	1.18	1.06	0.91	5.0
Oct. 2	5.6	------	1.13	1.22	1.33	------	------	------	------	------	4.6
Oct. 3	5.6	------	------	1.14	1.29	1.55	1.18	------	------	------	6.5
Oct. 4	8.5	------	------	------	------	1.66	1.27	1.14	1.05	.90	8.5
Oct. 5	6.3	------	------	1.07	1.21	1.40	1.30	------	------	------	7.9
Oct. 7	5.8	.91	.99	1.10	------	------	------	------	1.10	.99	8.2

TABLE 1.—*Solar radiation intensities during October 1945*—Con.

Date	Sun's zenith distance: 7:30 a.m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	1:30 p.m.
	Air mass: 75th mer. time	A. M.				*1.0	P. M.				75th mer. time
	e.	5.0	4.0	3.0	2.0		2.0	3.0	4.0	5.0	e.
ALBUQUERQUE, N. MEX.—Continued											
Oct. 10	9.8	------	------	------	------	1.39	------	1.11	.99	.90	10.6
Oct. 11	7.3	------	------	------	1.28	1.53	------	1.10	1.03	.95	5.8
Oct. 12	8.2	------	------	------	------	1.54	------	------	------	------	9.5
Oct. 13	7.3	.97	------	------	1.28	1.43	------	------	------	------	7.3
Oct. 14	7.6	.86	.99	1.10	1.25	1.42	1.30	1.14	1.06	------	6.8
	mb.	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*mb.*
Oct. 15	6.8	.91	1.05	1.15	1.30	------	1.36	1.27	1.19	1.04	7.0
Oct. 16	6.8	------	1.00	1.06	1.18	------	1.30	------	------	.88	8.5
Oct. 17	7.9	------	1.01	1.12	1.29	------	1.34	1.21	1.13	1.04	6.5
Oct. 18	5.2	------	------	------	------	------	------	1.22	1.16	1.01	5.6
Oct. 19	4.6	.80	.94	1.04	1.27	------	1.30	------	------	------	5.6
Oct. 20	4.6	.99	1.12	1.22	------	------	1.32	1.18	1.06	.95	5.2
Oct. 21	5.4	.98	1.11	1.21	1.41	1.42	1.35	1.15	1.01	.88	3.3
Oct. 23	7.3	------	------	------	------	------	1.40	1.19	------	.97	8.0
Oct. 24	2.9	------	------	1.26	------	------	1.38	1.22	1.03	------	2.5
Oct. 25	3.0	1.10	1.20	1.28	1.34	1.49	1.41	------	1.27	1.18	3.3
Oct. 26	3.2	1.03	1.15	1.20	1.35	1.47	1.38	1.34	1.26	1.21	4.0
Oct. 27	3.0	------	------	1.25	1.38	1.46	1.32	1.18	------	1.01	3.8
Oct. 30	4.2	------	------	1.10	1.29	------	------	1.16	------	------	6.0
Means	------	.95	1.06	1.16	1.30	1.40	1.33	1.18	1.10	.99	------
Departures	------	+.02	+.03	−.01	+.01	+.01	+.01	−.01	+.02	+.03	------
BOSTON, MASS.											
Oct. 4	4.6	------	------	------	1.21	------	1.29	------	------	------	4.4
Oct. 5	7.2	0.62	0.83	1.04	1.22	------	------	------	------	------	7.2
Oct. 8	13.7	------	------	------	1.22	------	1.22	0.99	0.79	0.73	15.8
Oct. 10	7.4	------	------	------	1.06	------	1.19	------	------	------	7.4
Oct. 17	6.1	------	------	------	1.11	------	1.22	1.00	------	------	6.6
Oct. 18	10.2	------	------	------	.95	------	------	------	------	------	9.8
Oct. 19	11.0	------	------	------	.82	------	------	------	------	------	11.4
Means	------	(.62)	(.83)	(1.04)	1.08	------	1.23	(1.00)	(.79)	(.73)	------
Departures	------	.00	+.12	+.26	+.02	------	+.12	+.10	+.04	+.09	------
BLUE HILL, MASS.											
Oct. 3	5.7	1.01	1.08	1.13	------	------	------	1.20	1.07	------	3.5
Oct. 4	4.1	1.06	1.14	1.21	1.33	1.53	1.31	------	------	------	4.2
Oct. 5	6.7	.80	.92	1.04	1.20	1.47	------	------	------	------	9.2
Oct. 8	13.6	------	------	------	1.28	------	1.19	1.02	.90	0.81	9.4
Oct. 9	14.8	------	------	------	------	------	------	1.18	1.07	.98	12.0
Oct. 10	6.6	1.01	1.10	1.20	------	------	------	------	------	------	5.4
Oct. 13	7.6	.92	1.03	1.14	1.30	------	------	------	------	------	7.3
Oct. 14	6.6	.76	.86	1.00	1.17	------	------	------	------	------	6.9
Oct. 17	5.4	.95	1.06	1.17	1.32	------	1.28	1.11	.95	.80	5.8
Oct. 18	9.6	.76	.88	1.03	1.20	------	------	------	------	------	11.6
Oct. 19	11.8	.60	.70	------	1.03	------	------	------	.67	.53	11.5
Oct. 20	14.6	------	------	------	1.26	------	------	1.14	1.03	.92	5.6
Oct. 21	6.1	.97	1.07	1.17	1.32	------	1.30	1.04	.97	.86	5.6
Oct. 22	12.1	------	------	------	------	------	------	------	------	.50	10.8
Oct. 27	5.9	.90	1.02	1.13	------	------	------	------	------	------	5.3
Oct. 28	5.4	.87	.98	1.10	1.30	------	1.30	1.15	1.02	.93	4.4
Oct. 30	9.2	------	------	------	------	------	------	.85	.73	.57	6.5
Oct. 31	14.5	------	------	------	------	------	------	------	.66	.57	12.5
Means	------	.88	.99	1.12	1.25	(1.50)	1.28	1.09	.91	.75	------
Departures	------	.00	+.03	+.03	+.01	+.11	+.06	+.05	−.01	−.05	------
RATIO, BOSTON/BLUE HILL, ON COMPARABLE DATES											
	------	(0.78)	(0.90)	(1.00)	0.89	------	0.98	(0.94)	(0.88)	(0.90)	------

* Extrapolated.

TABLE 2.—*Daily totals and weekly means of solar radiation (direct + diffuse) received on a horizontal surface*

[Gram calories per square centimeter]

Date	Washington, D. C.	Madison, Wis.	Lincoln, Nebr.	East Lansing, Mich.	New York, N. Y.	Fresno, Calif.	Columbia, Mo.	Boston, Mass.	Nashville, Tenn.	Twin Falls, Idaho	La Jolla, Calif.	Riverside, Calif.	Blue Hill, Mass.	Newport, R. I.	State College, Pa.	Put-in-Bay, Ohio	East Wareham, Mass.	Davis, Calif.	Boulder, Colo.	Tooele, Utah	New Orleans, La.	Toronto, Canada
1945	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*
Oct. 1	120	110	281	37	64	467	247	57	208	427	464	499	103	106	107	51	159	448	488	548	452	17
Oct. 2	174	474	450	186	71	463	486	41	428	427	354	476	56	60	79	160	73	460	469	537	387	161
Oct. 3	395	474	433	376	444	417	465	390	432	408	393	402	390	449	309	429	492	320	466	522	441	336
Oct. 4	448	455	106	354	318	432	260	347	142	373	327	383	462	433	478	394	465	474	381	306	426	341
Oct. 5	247	250	221	227	289	314	231	328	34	394	393	467	416	396	203	71	390	472	421	499	164	235
Oct. 6	53	330	407	66	63	213	247	151	118	394	374	296	201	196	301	177	214	257	442	459	219	113
Oct. 7	261	329	395	357	131	396	422	43	435	382	370	412	93	135	305	314	129	182	334	484	407	340
Means	243	346	328	229	197	386	337	194	285	400	382	419	246	254	255	221	274	373	429	479	357	220
Departures	−80	+67	−4	−20	−101	−38	+47	−49	−20	+33	−3	+28	−55	−30	−19	−78	−26	−60	+84	+33	−20	-----
Oct. 8	418	244	442	175	352	260	440	318	67	311	204	360	385	374	316	178	399	415	117	420	249	139
Oct. 9	404	399	364	133	305	328	459	150	395	370	255	380	180	192	246	266	188	444	430	478	288	272
Oct. 10	365	237	369	293	307	299	318	315	382	349	408	436	384	389	176	211	418	356	427	181	140	144
Oct. 11	405	403	316	294	292	203	425	146	390	284	452	396	173	242	384	283	206	419	281	285	500	118
Oct. 12	284	427	156	237	228	189	412	91	411	337	404	426	129	119	389	305	96	430	264	395	480	107
Oct. 13	413	378	240	295	186	369	341	261	399	307	373	411	324	284	187	301	327	438	115	396	458	181
Oct. 14	268	435	373	159	151	277	34	126	98	333	384	311	216	212	137	100	238	428	400	444	467	195
Means	365	360	323	226	260	275	347	201	306	327	354	388	256	259	262	235	268	419	290	372	369	165
Departures	+55	+104	+14	−5	−30	−118	+1	−12	+16	−15	−34	+12	−54	−51	+9	−37	−5	+23	−44	−33	−8	-----
Oct. 15	432	347	219	209	190	325	386	202	414	323	232	346	316	253	345	258	306	310	388	350	448	168
Oct. 16	390	380	360	308	242	377	403	186	331	246	97	222	243	243	183	284	228	434	346	298	468	323
Oct. 17	374	360	336	297	356	358	410	296	365	201	49	188	379	366	339	327	386	414	364	423	465	297
Oct. 18	375	289	328	285	264	383	369	234	365	367	216	301	335	318	367	291	332	401	371	466	441	274
Oct. 19	364	387	373	95	281	361	412	232	300	343	94	397	311	319	336	124	336	441	395	455	358	238
Oct. 20	375	335	287	303	352	397	409	274	257	226	133	226	353	328	369	374	335	418	342	170	358	318
Oct. 21	342	161	75	160	276	336	83	260	232	319	300	340	356	339	336	248	364	321	398	468	300	228
Means	379	323	282	237	280	362	353	240	295	289	160	289	328	309	325	272	327	391	372	376	405	264
Departures	+94	+92	−10	+28	+13	0	+4	+36	+22	−25	−180	−53	+48	+26	+95	+34	+85	+15	+47	−3	+48	-----
Oct. 22	307	364	328	181	136	381	412	122	64	327	277	228	196	163	276	50	221	480	298	166	112	69
Oct. 23	77	235	65	208	54	376	208	69	34	352	366	409	114	125	44	215	141	479	88	413	305	116
Oct. 24	94	109	266	94	106	385	97	49	183	330	419	434	46	69	67	62	69	466	308	439	335	234
Oct. 25	34	159	336	167	28	382	375	23	97	321	396	414	43	41	208	219	54	444	277	440	80	186
Oct. 26	292	361	325	132	89	362	388	29	355	238	364	382	42	55	220	221	64	379	396	423	456	182
Oct. 27	360	312	321	255	322	332	387	188	308	136	323	338	240	209	281	300	-------	348	387	240	456	158
Oct. 28	336	341	306	243	251	349	370	297	317	246	160	256	339	313	268	305	-------	347	213	397	342	202
Means	214	269	278	183	141	367	320	111	194	278	329	352	146	148	195	196	130	420	281	360	298	172
Departures	−42	+56	+1	+1	−87	+20	+9	−77	−50	−1	+14	+25	−62	−68	−6	−18	−86	+72	−27	+17	−38	-----

ACCUMULATED DEPARTURES ON OCTOBER 28, 1945

	+2,233	+11,991	−6,783	−5,096	−9,702	−497	------	−3,059	−1,162	−9,212	−16,569	+5,558	−7,539	−10,178	+3,108	−427	−,1274	−630	------	------	------	-----

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR OCTOBER 1945

By Lucy T. Day

[Equatorial Division, U. S. Naval Observatory]

[Communicated by Commodore J. F. Hellweg, U. S. N. (Ret.) Superintendent, U. S. Naval Observatory.] All measurements and spot counts were made at the Naval Observatory from plates taken at the observatories indicated. Difference in longitude is measured from the central meridian, positive toward the west. Latitude is positive toward the north. Areas are corrected for foreshortening and expressed in millionths of Sun's hemisphere. For each day, under longitude, latitude, area of spot or group, and spot count are included assumed longitude of center of the disk, assumed latitude of center of the disk, total areas of spots and groups, and total spot count.

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1945	h m		°	°	°	°				
Oct. 1	16 9	7854	−52	117	−18	57	218	3	F	U. S. Naval.
		7856	−42	127	−22	50	145	4		
		7856	−41	128	−23	50	6	1		
		7856	−38	131	−21	47	242	2		
		7853	−30	139	+23	33	194	2		
		7851	−28	141	−22	40	388	1		
		7853	−25	144	+22	28	73	10		
		7853	−20	149	+22	23	315	1		
		7852	+20	189	+19	22	48	4		
		7855	+47	216	−17	52	6	1		
				(169)	(+7)		1,635	29		
2	13 44	7854	−39	118	−19	46	121	7	G	Do.
		7856	−29	128	−23	42	194	6		
		7856	−27	130	−21	39	12	1		
		7856	−25	132	−22	38	194	3		
		7856	−23	134	−20	35	12	3		
		7856	−22	135	−22	36	206	1		
		7853	−20	137	+23	25	194	1		
		7853	−19	138	+23	23	97	5		
		7853	−15	142	+23	21	97	9		
		7851	−13	144	−22	31	388	1		
		7853	−9	148	+23	18	339	1		
		7852	+31	188	+20	33	24	1		
				(157)	(+7)		1,878	39		
3	11 20	7854	−30	115	−17	38	12	6	F	Do.
		7854	−27	118	−19	37	73	5		
		7856	−18	127	−23	35	194	9		
		7856	−17	128	−21	33	48	3		
		7856	−14	131	−22	32	194	4		
		7856	−11	134	−21	30	145	1		
		7856	−11	134	−24	32	48	5		
		7853	−9	136	+23	18	194	1		
		7853	−8	137	+23	18	170	3		
		7853	−3	142	+22	15	97	11		
		7851	−2	143	−22	29	388	2		
		7853	+2	147	+23	16	267	2		
				(145)	(+7)		1,830	52		
4	11 40	7854	−13	119	−17	28	73	4	P	Do.
		7856	−5	127	−22	30	121	9		
		7856	+1	133	−21	28	339	7		
		7853	+4	136	+23	17	109	2		
		7853	+6	138	+22	17	145	4		
		7853	+7	139	+22	18	97	8		
		7851	+12	144	−22	31	388	1		
		7853	+14	146	+22	20	218	5		
				(132)	(+7)		1,490	40		
5	10 39	7854	−1	118	−19	26	73	3	F	Do.
		7856	+7	126	−23	29	97	7		
		7856	+14	133	−22	31	291	4		
		7853	+16	135	+24	23	267	9		
		7853	+20	139	+24	27	194	10		
		7851	+22	141	−21	35	436	1		
		7853	+25	144	+23	30	48	8		
		7853	+27	146	+23	31	218	1		
				(119)	(+6)		1,624	43		
7	15 21	7859	−70	20	−31	76	194	1	F	Do.
		7859	−57	33	−29	65	97	3		
		7857	−29	61	+22	33	97	10		
		7857	−23	67	+21	27	73	2		
		7858	+21	111	−11	27	12	2		
		7854	+27	117	−20	37	16	5		
		7856	+43	133	−22	51	267	3		
		7853	+47	137	+23	49	339	16		
		7853	+50	140	+21	52	145	8		
		7851	+51	141	−22	59	388	1		
		7853	+55	145	+21	56	194	1		
				(90)	(+6)		1,822	53		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR OCTOBER 1945—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1945	h m		°	°	°	°				
Oct. 8	11 40	7859	−58	21	−32	67	170	1	G	U. S. Naval
		7859	−48	31	−30	60	97	4		
		7857	−18	61	+22	24	97	7		
		7857	−13	66	+21	20	97	9		
		7856	+55	134	−22	61	242	3		
		7853	+57	136	+23	58	339	12		
		7853	+65	144	+22	66	436	8		
		7851	+65	144	−22	70	339	1		
				(79)	(+6)		1,817	45		
9	12 11	7859	−45	21	−32	58	170	1	F	Do.
		7860	−43	23	−20	50	12	5		
		7859	−38	28	−31	52	24	9		
		7859	−31	35	−31	49	61	5		
		7857	−4	62	+22	16	109	8		
		7857	−1	65	+21	15	12	3		
		7857	+3	69	+21	15	73	7		
		7856	+70	136	−23	75	242	2		
		7853	+70	136	+23	70	242	7		
		7853	+80	146	+22	80	436	2		
		7851	+82	148	−23	85	242	1		
				(66)	(+6)		1,623	50		
10	11 40	7859	−33	20	−32	49	73	1	F	Do.
		7860	−29	24	−22	41	24	5		
		7859	−27	26	−32	46	24	5		
		7859	−18	35	−30	40	48	1		
		7857	+10	63	+22	18	24	2		
		7857	+15	68	+21	21	48	1		
		7853	+84	137	+23	84	242	3		
		7856	+85	138	−22	88	242	1		
				(53)	(+6)		725	19		
11	11 4	7859	−20	20	−32	42	48	1	F	Do.
		7859	−14	26	−32	40	24	2		
		7859	−10	30	−32	39	48	4		
		7859	−4	36	−31	37	48	2		
		7857	+22	62	+21	26	12	6		
		7857	+28	68	+20	31	61	3		
				(40)	(+6)		241	18		
12	13 0	7862	−88	298	+27	88	242	2	G	Do.
		7859	−7	19	−33	39	61	1		
		7859	−2	24	−32	38	48	2		
		7859	+6	32	−32	39	24	1		
		7859	+10	36	−31	38	73	2		
		7857	+41	67	+20	43	24	1		
				(26)	(+6)		472	9		
13	10 43	7862	−76	298	+27	76	291	4	G	Do.
		7859	+4	18	−33	39	48	2		
		7859	+8	22	−32	38	12	1		
		7859	+15	29	−31	40	24	5		
		7859	+18	32	−31	41	48	4		
		7859	+22	36	−31	43	24	4		
		7861	+36	50	−17	42	48	5		
		7857	+53	67	+20	54	16	1		
				(14)	(+6)		511	26		
14	10 46	7862	−78	282	+29	78	48	1	F	Mt. Wilson.
		7862	−63	297	+27	63	242	1		
		7859	+18	18	−34	43	24	1		
		7859	+37	37	−32	52	36	1		
		7861	+51	51	−18	58	16	2		
		7861	+55	55	−17	60	36	1		
		7857	+67	67	+23	68	12	1		
				(0)	(+6)		414	8		
15	11 43	7863	−69	278	−21	73	291	1	G	U. S. Naval
		7863	−65	282	−19	69	194	1		
		7862	−64	283	+28	65	48	3		
		7862	−49	298	+27	52	242	1		
		7862	−49	298	+26	51	12	1		
		7859	+44	31	−28	57	24	2		
		7861	+62	49	−19	67	12	1		
		7861	+68	55	−17	70	12	3		
				(347)	(+6)		835	13		
16	11 0	7864	−68	266	−23	72	194	8	G	Do.
		7863	−57	277	−18	62	242	2		
		7863	−56	278	−17	61	24	1		
		7863	−53	281	−17	58	48	3		
		7862	−50	284	+30	53	24	1		
		7862	−36	298	+27	40	242	1		
		7859	+56	30	−28	66	12	1		
				(334)	(+6)		786	17		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR OCTOBER 1945—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic				Area of spot or group	Spot count	Plage quality	Observatory
			Difference in longitude	Longitude	Latitude	Distance from center of disk				
1945	h m		°	°	°	°				
Oct. 17	11 30	7864	−66	254	−26	70	339	9	G	U. S. Naval
		7864	−60	260	−25	67	48	2		
		7864	−57	263	−23	63	170	6		
		7864	−53	267	−23	61	97	5		
		7863	−45	275	−19	51	194	6		
		7863	−39	281	−13	43	121	7		
		7862	−39	281	+29	44	24	4		
		7862	−23	297	+27	31	194	7		
				(320)	(+6)		1,187	46		
18	11 6	7865	−73	234	+34	73	16	1	VG	Do.
		7864	−53	254	−26	62	315	16		
		7864	−50	257	−25	59	48	15		
		7864	−47	260	−24	56	97	9		
		7864	−44	263	−23	53	109	7		
		7864	−40	267	−23	50	61	5		
		7863	−32	275	−19	40	194	6		
		7863	−26	281	−18	37	61	7		
		7862	−25	282	+30	33	24	3		
		7866	−16	291	+15	18	24	1		
		7862	−10	297	+26	22	194	10		
				(307)	(+6)		1,143	80		
19	11 1	7869	−67	227	+23	68	24	6	VG	Do.
		7865	−59	235	+34	61	12	1		
		7867	−43	251	+28	48	24	5		
		7864	−42	252	−29	53	315	6		
		7864	−35	259	−27	48	218	25		
		7864	−27	267	−26	41	97	2		
		7863	−20	274	−21	33	194	4		
		7863	−20	274	−24	36	12	4		
		7863	−12	282	−19	27	73	13		
		7862	−11	283	+28	25	12	1		
		7866	−4	290	+15	10	48	12		
		7862	+3	297	+25	19	109	16		
		7862	+8	302	+28	23	12	2		
		7868	+43	337	−32	57	6	2		
				(294)	(+6)		1,156	99		
20	11 0	7869	−54	227	+23	56	24	2	VG	Do.
		7865	−45	236	+34	51	12	1		
		7864	−29	252	−28	44	388	1		
		7867	−28	253	+28	36	24	5		
		7864	−27	254	−28	43	48	2		
		7864	−26	255	−26	40	109	5		
		7864	−23	258	−25	38	97	2		
		7864	−21	260	−26	37	24	1		
		7864	−18	263	−25	35	12	4		
		7864	−16	265	−25	33	145	10		
		7864	−13	268	−24	32	61	2		
		7863	−7	274	−20	26	194	6		
		7863	+1	282	−18	23	48	6		
		7862	+1	282	+29	24	12	1		
		7862	+16	297	+25	25	170	8		
		7868	+57	338	−32	64	12	3		
				(281)	(+5)		1,380	59		
21	11 59	7869	−40	227	+25	43	12	1	G	Do.
		7867	−19	248	+29	30	48	8		
		7864	−17	250	−28	37	339	4		
		7867	−12	255	+28	27	24	1		
		7864	−12	255	−27	35	73	4		
		7864	−9	258	−27	34	291	12		
		7864	−5	262	−27	32	24	6		
		7864	−3	264	−26	31	97	1		
		7864	+2	269	−26	31	36	4		
		7864	+2	269	−20	25	12	3		
		7863	+7	274	−20	26	121	2		
		7862	+13	280	+27	27	24	7		
		7863	+15	282	−19	28	48	7		
		7862	+30	297	+26	37	73	5		
		7868	+70	337	−32	75	12	2		
				(267)	(+5)		1,234	67		
22	11 13	7867	−5	250	+28	25	36	4	F	Do.
		7864	−3	252	−28	33	339	5		
		7867	−2	253	+28	25	24	4		
		7867	0	255	+28	23	6	6		
		7864	0	255	−26	31	73	9		
		7864	+2	257	−26	31	121	12		
		7864	+5	260	−25	29	145	9		
		7864	+12	267	−25	32	145	10		
		7863	+20	275	−20	32	97	4		
		7863	+28	283	−18	37	24	3		
		7862	+43	298	+26	47	73	4		
				(255)	(+5)		1,083	70		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR OCTOBER 1945—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic				Area of spot or group	Spot count	Plage quality	Observatory
			Difference in longitude	Longitude	Latitude	Distance from center of disk				
1945	h m		°	°	°	°				
Oct. 23	9 50	7867	+8	250	+29	26	61	4	F	Mt. Wilson
		7864	+10	252	−28	35	291	4		
		7867	+12	254	+29	27	121	2		
		7864	+13	255	−27	35	97	3		
		7864	+19	261	−25	36	121	7		
		7864	+26	268	−25	39	73	1		
		7863	+33	275	−18	40	73	2		
		7863	+42	284	−17	47	61	1		
		7862	+56	298	+27	58	48	1		
				(242)	(+5)		946	25		
24	11 13	7873	−88	140	+22	88	48	1	G	Do.
		7871	−41	187	−40	57	12	2		
		7871	−37	191	−38	55	12	2		
		7867	+19	247	+29	37	61	10		
		7864	+22	250	−28	39	339	2		
		7664	+26	254	−27	40	97	9		
		7867	+27	255	+29	35	97	1		
		7864	+34	262	−25	45	73	7		
		7864	+41	269	−25	50	48	1		
		7863	+48	276	−18	53	16	1		
		7863	+51	279	−17	56	12	2		
		7862	+67	295	+28	68	12	1		
		7870	+75	303	−22	78	97	4		
				(228)	(+5)		924	43		
25	10 53	7874	−77	138	−22	79	12	2	G	Do.
		7873	−75	140	+23	75	97	1		
		7872	−37	178	−20	44	6	1		
		7871	−29	186	−40	52	12	6		
		7871	−22	193	−38	48	16	2		
		7867	+34	249	+30	41	145	17		
		7864	+35	250	−28	47	461	7		
		7867	+37	252	+39	48	194	23		
		7864	+41	256	−25	49	97	4		
		7864	+49	264	−25	55	48	12		
		7864	+55	270	−24	60	24	1		
		7863	+61	276	−18	65	6	1		
				(215)	(+5)		1,118	77		
26	11 35	7873	−68	134	+25	69	194	2	F	U. S. Naval.
		7873	−66	136	+20	66	121	3		
		7874	−65	137	−24	68	145	1		
		7872	−23	179	−21	34	6	1		
		7871	−18	184	−40	48	6	1		
		7871	−7	195	−40	45	6	1		
		7867	+47	249	+28	51	121	2		
		7864	+48	250	−28	57	291	1		
		7867	+49	251	+28	52	315	9		
		7864	+55	257	−28	61	121	5		
		7864	+67	269	−27	70	97	2		
				(202)	(+5)		1,423	28		
27	13 11	7876	−78	110	−17	80	194	2	F	Do.
		7876	−69	119	−13	70	194	1		
		7874	−51	137	−23	57	194	1		
		7873	−50	138	+24	53	24	2		
		7873	−46	142	+23	48	73	7		
		7871	+1	189	−39	44	24	1		
		7871	+6	194	−40	45	48	10		
		7875	+9	197	+19	17	12	1		
		7875	+12	200	+18	18	73	14		
		7867	+60	248	+29	61	97	4		
		7864	+62	250	−28	68	436	2		
		7867	+67	255	+28	68	630	11		
		7864	+70	258	−27	74	48	2		
				(188)	(+5)		2,047	58		
28	11 45	7876	−58	117	−17	61	291	6	(†)	Mt. Wilson.
		7874	−38	137	−23	47	194	1		
		7873	−34	141	+22	37	121	3		
		7871	+14	189	−39	46	73	2		
		7875	+25	200	+18	28	242	12		
		7864	+77	252	−26	79	388	1		
		7867	+78	253	+29	78	533	7		
				(175)	(+5)		1,842	32		
29	11 37	7876	−50	112	−17	55	73	7	G	U. S. Naval.
		7876	−45	117	−14	48	6	1		
		7876	−43	119	−15	46	145	1		
		7874	−27	135	−22	37	194	1		
		7874	−25	137	−21	35	12	2		
		7873	−25	137	+23	30	145	16		
		7871	+26	188	−38	50	48	4		
		7871	+32	194	−39	53	73	11		
		7875	+36	198	+20	38	194	13		
		7875	+40	202	+18	41	194	11		
		7867	+85	247	+29	85	242	3		
		7867	+87	249	+30	87	145	2		
				(162)	(+5)		1,471	72		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR OCTOBER 1945—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic				Area of spot or group	Spot count	Plate quality	Observatory
			Difference in longitude	Longitude	Latitude	Distance from center of disk				
1945	h m		°	°	°	°				
Oct. 30	11 10	(*)	−54	95	−24	60	6	3	G	U. S. Naval
		7876	−37	112	−17	43	48	3		
		7876	−31	118	−16	36	6	1		
		7876	−30	119	−16	36	145	1		
		7874	−13	136	−24	31	194	1		
		7874	−12	137	−27	33	12	4		
		7871	+41	190	−39	57	109	9		
		7871	+48	197	−39	61	61	2		
		7875	+48	197	+20	50	339	10		
		7875	+51	200	+18	53	97	7		
		7875	+55	204	+18	57	194	7		
				(149)	(+5)		1,211	48		
31	11 29	7877	−79	57	−23	80	97	1	F	Do.
		7876	−24	112	−19	33	36	2		
		7876	−21	115	−18	30	24	3		
		7876	−17	119	−16	25	12	1		
		7876	−15	121	−16	24	145	1		
		7874	0	136	−25	29	170	1		
		7873	0	136	+21	17	12	2		
		7873	+4	140	+21	17	24	5		
		7871	+53	189	−40	67	48	2		
		7875	+61	197	+19	61	388	12		
		7871	+64	200	−39	73	48	1		
		7875	+70	206	+18	70	48	1		
				(136)	(+4)		1,052	32		

Mean daily area for 30 days=1,231

*Not numbered.
†Data from Mt. Wilson charts.
VG=very good; G=good; F=fair; P=poor.

675939—46——2

PROVISIONAL RELATIVE SUNSPOT NUMBERS FOR OCTOBER 1945

[Based on observations at Zurich except as indicated by an asterisk. Data furnished through the courtesy of Prof. W. Brunner, Swiss Federal Observatory, Zurich, Switzerland]

October 1945	Relative numbers	October 1945	Relative numbers	October 1945	Relative numbers
1	87	11	31	21	78
2	82	12	29	22	*a*51
3	82	13	41	23	89
4	*aa*67	14	47	24	76
5	70	15	*d*52	25	59
6	79	16	50	26	54
7	93	17	55	27	*Mc*79
8	71	18	71	28	86
9	71	19	98	29	68
10	64	20	96	30	65
				31	71

Mean, 31 days=68.1

* Observed at Locarno.
a Passage of an average-sized group through the central meridian.
b Passage of a large group through the central meridian.
c New formation of a group developing into a middle-sized or large center of activity; E, on the eastern part of the Sun's disc; W, on the western part; M, in the central circle zone.
d Entrance of a large or average-sized center of activity on the east limb.

Chart I. Departure (°F.) of the Mean Temperature from the Normal, and Wind Roses for Selected Stations, October 1945

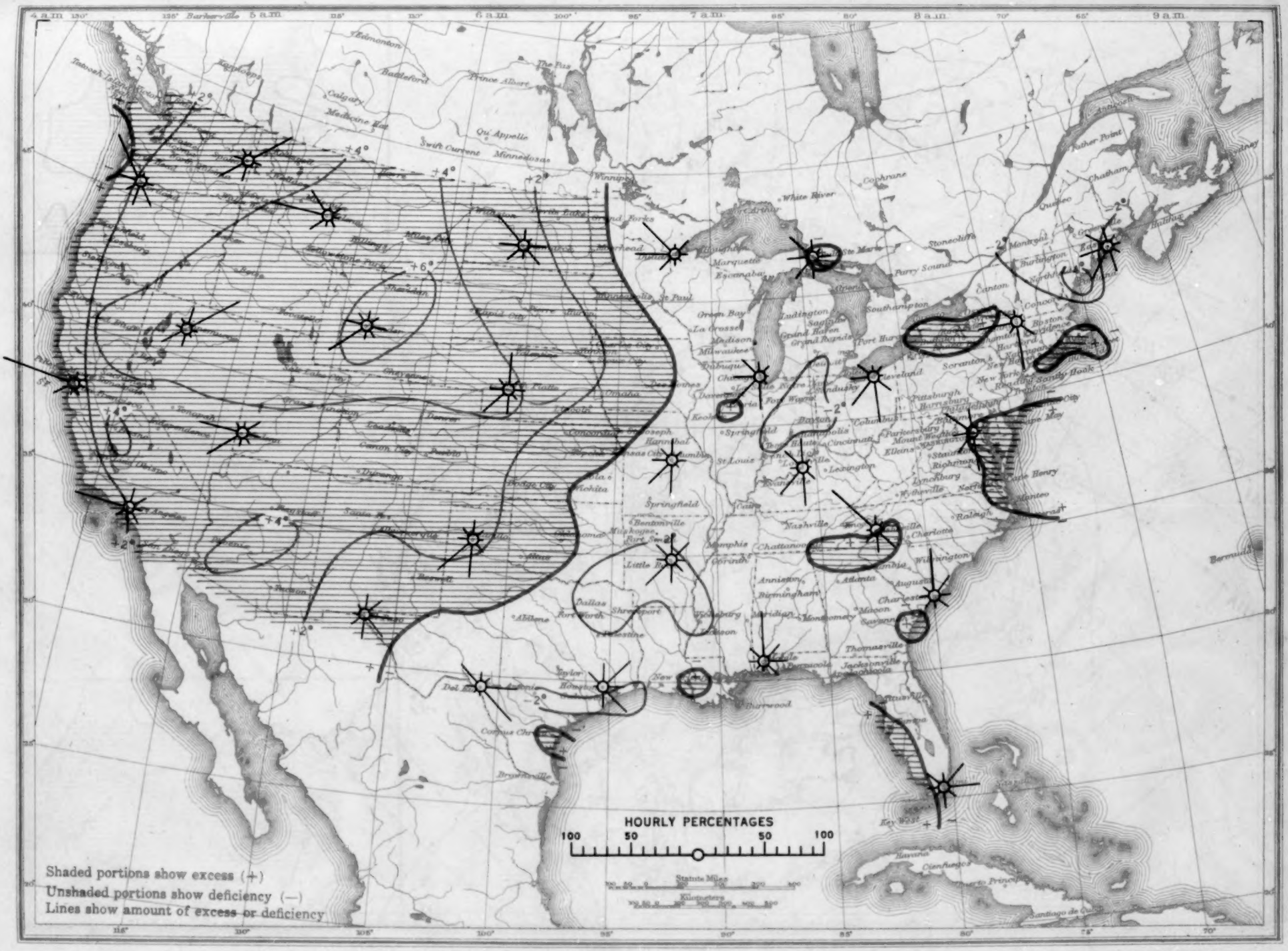
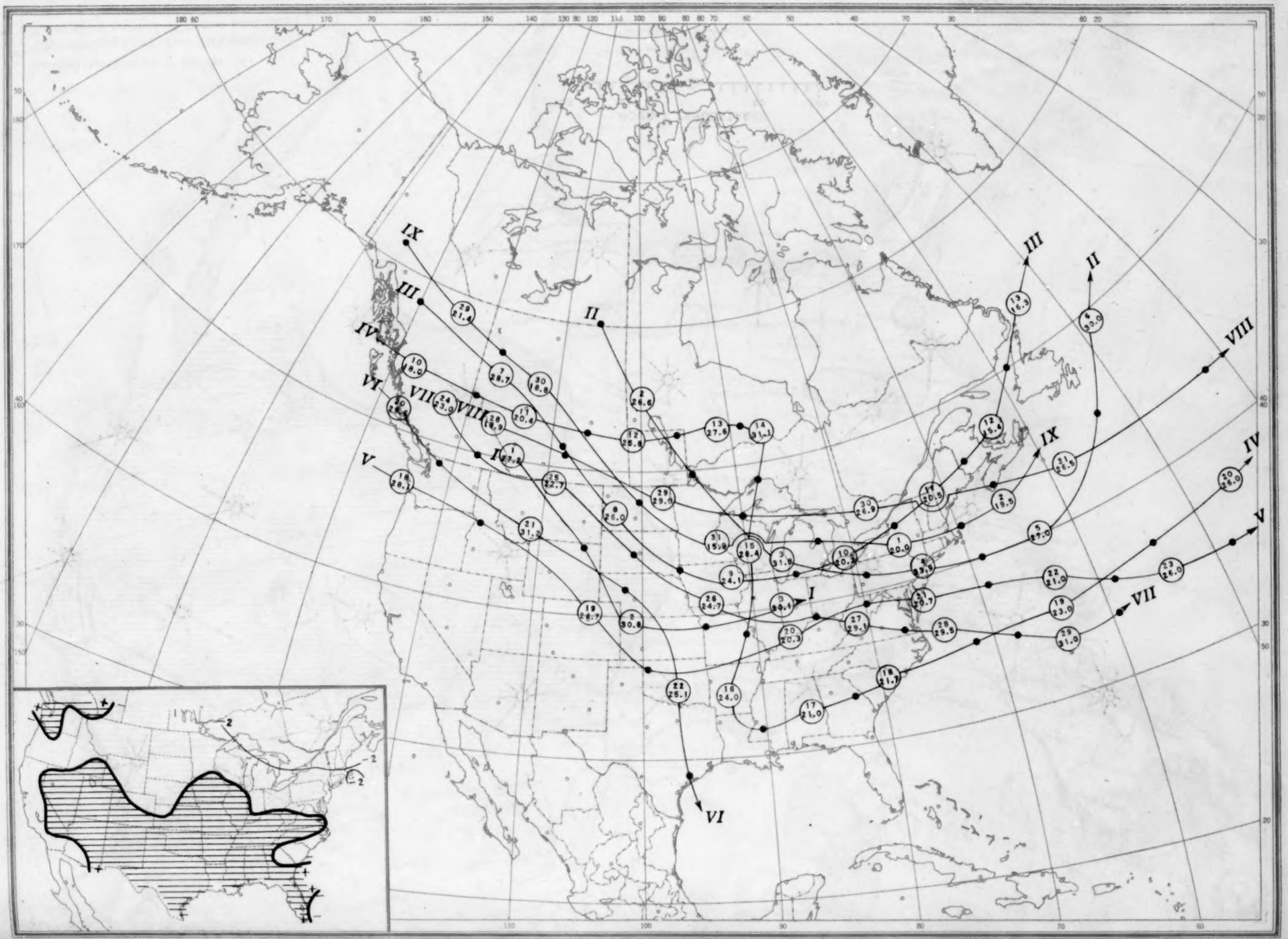


Chart II. Tracks of Centers of Anticyclones, October 1945. (Inset) Departure of Monthly Mean Pressure from Normal

(Plotted by D. R. Harris)



Circle indicates position of anticyclone at 7:30 a. m. (75th meridian time), with barometric reading. Dot indicates position of anticyclone at 7:30 p. m. (75th meridian time)

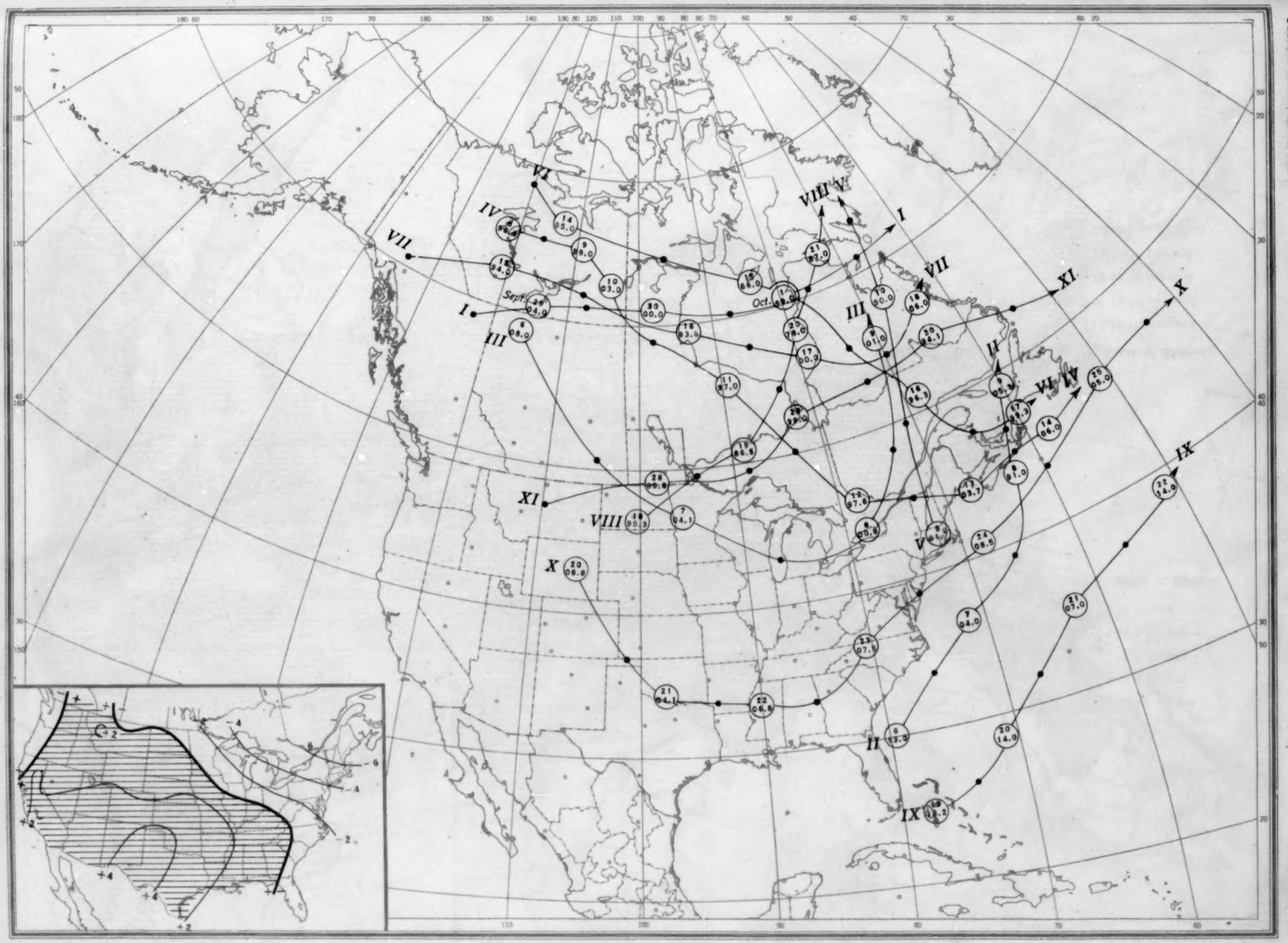
Chart III. Tracks of Centers of Cyclones, October 1945. (Inset) Change in Mean Pressure from Preceding Month

(Plotted by D. R. Harris)

Circle indicates position of anticyclone at 7:30 a. m. (75th meridian time), with barometric reading. Dot indicates position of anticyclone at 7:30 p. m. (75th meridian time)

Chart III. Tracks of Centers of Cyclones, October 1945. (inset) Change in Mean Pressure from Preceding Month

(Plotted by D. R. Harris)



Circle indicates position of cyclone at 7:30 a. m. (75th meridian time), with barometric reading. Dot indicates position of cyclone at 7:30 p. m. (75th meridian time)

Chart IV. Percentage of Clear Sky Between Sunrise and Sunset, October 1945

Chart V. Total Precipitation, Inches, October 1945. (Inset) Departure of Precipitation from Normal

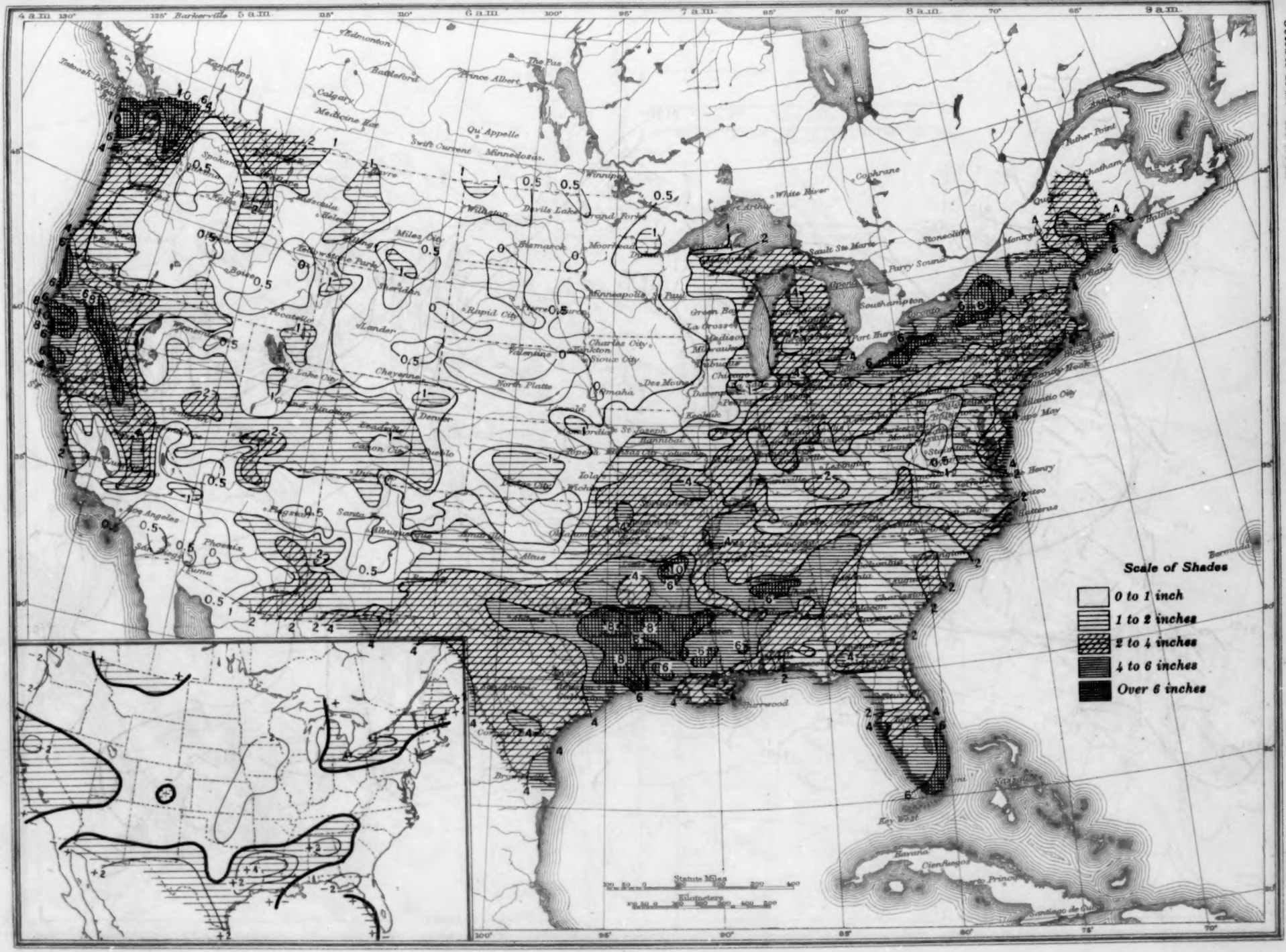


Chart VI. Isobars (mb), at Sea Level and Isotherms (°F.) at Surface; Prevailing Winds, October 1945

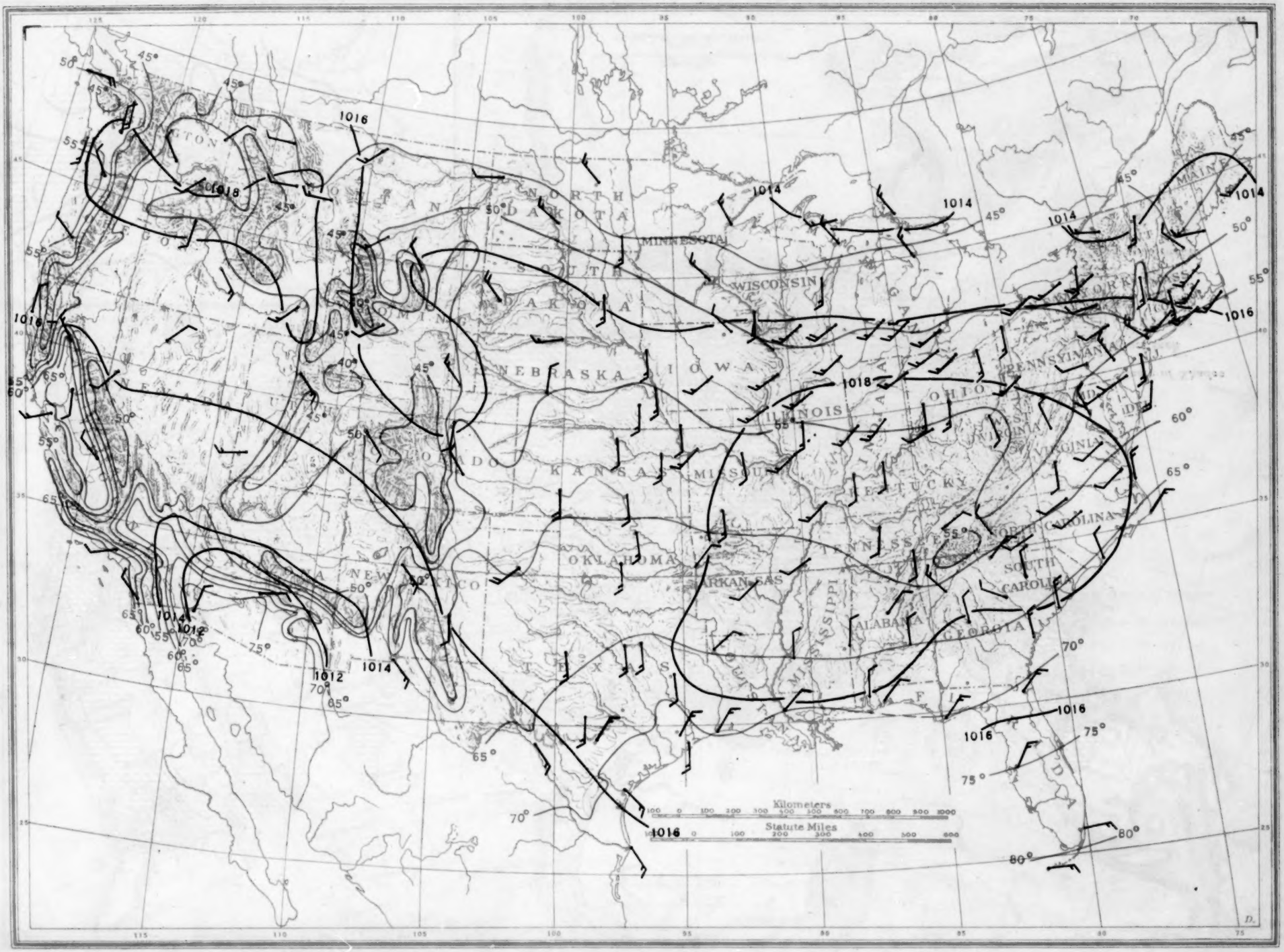


Chart VIII. Isobars (mb) for 1,524 Meters (5,000 ft.), and Isotherms (°C.), and Resultant Winds for 1,500 Meters (m. s. l.) October 1945

Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot balloon observations at 5:00 p. m. (E. S. T.).

Chart VIII. Isobars (mb) for 1,524 Meters (5,000 ft.), and Isotherms (°C.), and Resultant Winds for 1,500 Meters (m. s. l.) October 1945

Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot balloon observations at 5:00 p. m. (E. S. T.).

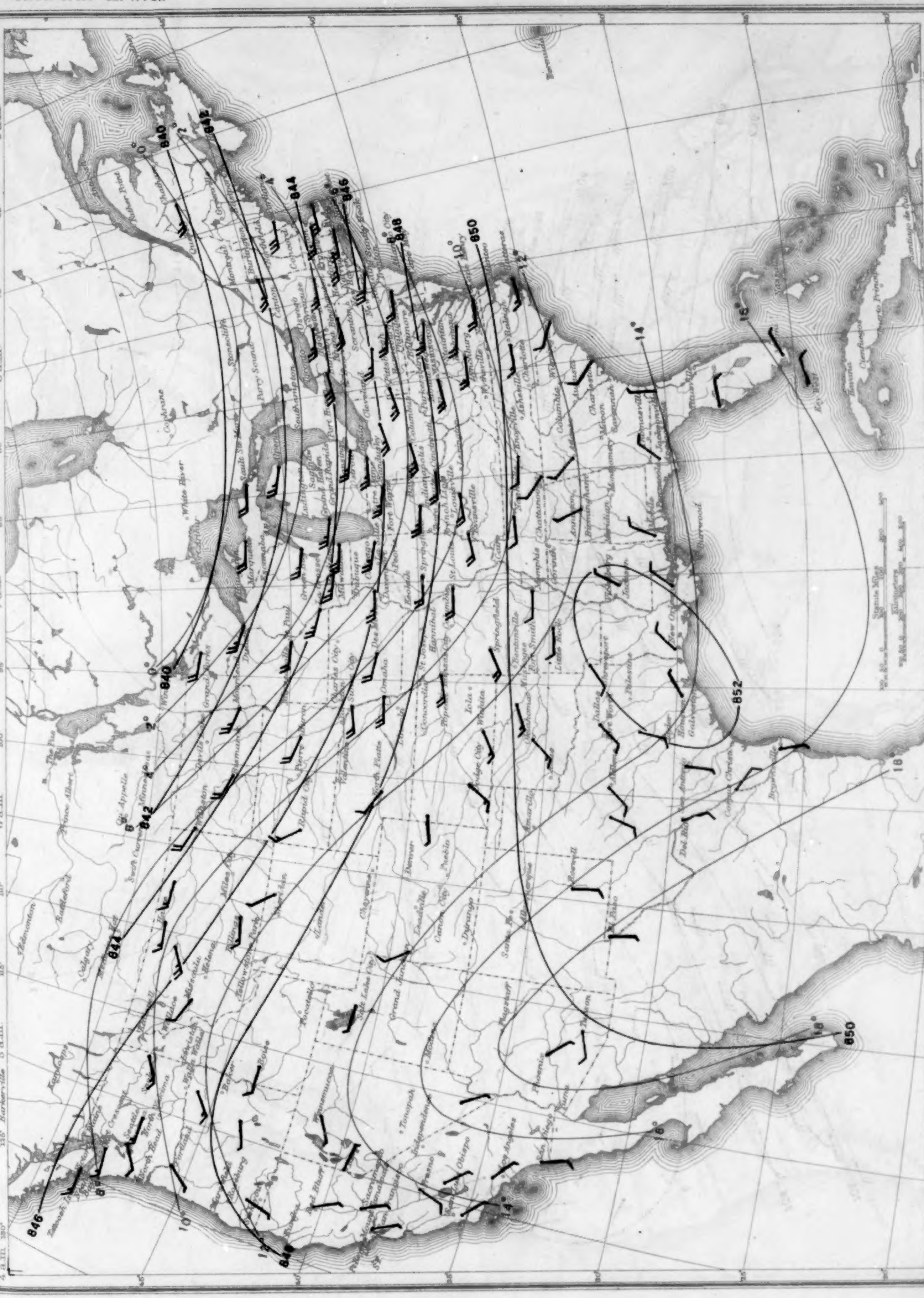


Chart IX. Isobars (mb), Isotherms (°C.), and Resultant Winds for 3,000 Meters (m. s. l.) October 1945

Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot balloon observations at 5:00 p. m. (E. S. T.).

Chart X. Isobars (mb), Isotherms (°C.), and Resultant Winds for 5,000 Meters (m. s. l.) October 1945

Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot balloon observations at 5:00 p. m. (E. S. T.).

Chart X. Isobars (mb), Isotherms (°C.), and Resultant Winds for 5,000 Meters (m. s. l.) October 1945

Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot balloon observations at 5:00 p. m. (E. S. T.).

Chart XI. Isobars (mb), Isotherms (°C.), and Resultant Winds for 10,000 Meters (m. s. l.) October 1945

Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot balloon observations at 5:00 p. m. (E. S. T.).